

# THE CULTIVATOR

[THIRD]

TO IMPROVE THE SOIL AND THE MIND.

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## *The Cultivator & Country Gentleman.*

### ROTATION OF CROPS—I.

#### **Culture of the Potato.**

The pioneer settler of our land found a virgin soil which brought forth rank harvests, when transformed from the wilderness in which he found it. Little was he obliged, and still less did he think of rotation of crops, or feed cattle and sheep to make manure to replenish a hungry soil. Not so, however, with succeeding generations; a self-supporting system of farming must be adopted. The land must now be fed as well as burthened with harvests. A succession of crops has drawn from its once apparently inexhaustible resources of richness; now he is obliged to return to the soil the necessary material to furnish the elements necessary to feed the growing crop. As different crops draw from the soil different elements, it is found beneficial to make a judicious rotation of the same. Certain crops better adapt themselves to particular soils than to be raised indiscriminately on all soils. For example, a sandy loam of medium tenacity, neither wet nor dry, is well adapted to the following crops: Potatoes, sorghum, Indian corn, tobacco, wheat, and grass. Adopting the foregoing crops for a rotation, and in the order here named, I will endeavor to give a brief outline of the treatment of the same.

**POTATOES.**—Years ago potatoes were grown with little care on nearly all soils, but disease and the rot have materially altered the necessary treatment due this crop. I have found that potatoes give the best returns planted on a sod, the soil similar to that mentioned above.

**Preparation of the Soil.**—As early in spring after the ground is settled and dry enough to work, plow with the lap furrow to the depth of 10 inches, laying the furrow slices smooth and true—make them of equal width. After lying a day or two to dry and settle, ap-

ply manure broadcast at the rate of five cords to the acre; the best is that made principally of black muck worked over and mixed with horse manure and litter in the hog-pen, in the proportion of two of muck to one of manure, this should be thoroughly decomposed, and best prepared under cover some months before using; spread it evenly over the ground, and with a drag harrow mix it with the soil, finishing off with a fine tooth harrow. The potato being of a somewhat coarse growth, we are apt to plant them in ground but illy prepared, which may be one reason or cause of their degeneration.

**Seed.**—In selecting seed reference is had to the object of the crop, whether for market or domestic use; if the former, the demand will rule the variety; if the latter, the palate. No tubers should be used either over or under grown in size. A medium size suitable for the table and perfectly ripe will be found the best not only for the first, but succeeding crops. Such are cut into good sized sets of one or two eyes each, keeping the root ends by themselves; if kept on the ground, they may be prepared at leisure during the last of winter, or before the weather will admit of early spring work. In saving seed it should be selected at the time of harvesting; the fairest and best are the most proper, and instead of deteriorating, if this course is followed up, an improvement is the necessary result.

**Planting.**—Lay off the land into rows  $3\frac{1}{2}$  feet apart with a light plow, and into the furrows strew tobacco stalks cut into lengths of 4 to 6 inches. This I have found to produce the fairest and best potatoes of any fertilizer in the hill or drill, they being uniformly smooth and sound. On this, drop the potato sets at a uniform distance of about one foot; cover with a coverer for the purpose drawn by one or two horses; this raises a slight ridge for the rows and gives a uniform covering. Early planting is best—in April, if the weather will admit.

**Cultivating.**—As soon as the tops make their appearance generally above ground, go through with the horse cultivator, followed by the hand hoe to stir the soil and destroy any weeds around the young plants. Three similar dressings, raising the ridges but slightly previous to their blossoming, is sufficient; any weeds that may show themselves after, should be pulled out by hand.

**Harvesting.**—The crop should be harvested as soon as ripe, not left in the ground through the fall rains. They are ripe when the tops have died down, and can be pulled without bringing but few, if any, tubers with them. The digging on a small scale is best

done with the potato hook ; on a larger by a plow ; let them lie to dry, so that the dirt will fall off, when they should be picked up ; carried under cover where they may be spread on the ground and have a free circulation of air, and allowed to remain a few weeks, when they are assorted and put in bins of moderate capacity, in a cellar where the temperature is uniform and as low as consistent without freezing.

#### **Culture of Sorghum in Connecticut.**

The desire to be self-supporting, is a natural and laudable desire, in every community, and, as a consequence, has led to the putting forth strong efforts which have resulted in the favorable solution of the problem, whether sugar and molasses cannot be successfully and profitably produced in the Northern section of our union. The juice of sorghum or Chinese sugar cane is capable of being made into molasses of a quality equal, if not superior, to New Orleans, and makes a sugar of superior quality. This cane may be successfully grown in some of its varieties wherever Indian corn will perfect itself. In this latitude the "common Sorgo" is the one most commonly raised, as the most prolific ; the smaller, quicker growing varieties, though not so profitable, are more desirable in more northern latitudes. Aside from its valuable qualities as syrup and sugar producing, it is one of the best plants raised for cattle, horses, or hogs ; they eat it with a relish, and grow fat. Cows fed with it give excellent returns in the milk-pail. A friend who has raised it for fodder for many years, assured me that speaking within bounds, the product of an acre would keep three head through the winter in thriving condition.

*Seed.*—This plant being closely allied to broom corn, should not be raised near it, as it mixes and thus degenerates. The seed should be selected from the strongest, ripest and sweetest canes, and these gathered by themselves and carefully saved. It is best hung up in the attic of buildings, or spread on racks to dry.

*Preparation of the soil.*—The roots of the "sorgo" run deep, consequently the soil cannot be loosened too deep. Plow with a narrow furrow slice to the depth of ten to eleven inches ; better if subsoiled the last of April or early in May ; sow broadcast four to six bushels of lime to the acre previous to harrowing ; the more thoroughly the soil is pulverized with the harrow the more readily the crop grows, and the less the labor in after cultivation.

*Planting.*—Lay the land off into rows  $3\frac{1}{2}$  feet apart with a plow, drop out the manure  $2\frac{1}{2}$  feet apart for hills, at the rate of twelve good cart loads of well decomposed compost to the acre ; mix a little soil with it and plant the seed over it ; put in six or eight seed to the hill, cover with fine soil to a depth not exceeding one inch. The seed soaked in warm water one day, and put in a bag and buried in warm soil two or three days before planting will come up much sooner. Planting should be done previous to the middle of May.

*Cultivating.*—The young cane is very diminutive, and is hardly distinguished from water grass, and unless well and carefully cultivated, is very slow to start into growth, often remaining at a stand still for several weeks after rising two or three inches, but when dressed out as soon as above ground, and frequent after-dressings, it grows comparatively rapid. Not a weed

should be allowed to grow among it. Thin to four stalks to the hill at the second hoeing. The more frequent the cultivator is run through it, followed by the hand hoe till it attains a growth of three feet, the more rapid the growth.

*Harvesting.*—The cane should be cut previous to freezing frosts, for freezing and a thaw following previous to manufacturing injures it very materially for syrup or sugar. It makes the best syrup and sugar to get thoroughly ripe, (which is known by the stalk turning a reddish brown, and the seed having passed from the dough state,) cutting and placing under cover, or shocked in the field with tops and blades all on, and well protected with corn-fodder or like ; it thus may be kept six to twelve weeks, without danger of frost or fermentation ; thus kept it makes a better quality and a greater quantity of syrup and sugar. The tops are cut off two or three feet, as also the leaves stripped and the canes tied into small bundles, by having a band of leaves tied around them near each end, previous to carting to the mill ; they may then be carried on a common cart and dumped. Many strip the leaves previous to cutting in the field by taking a fork and striking downwards and thus breaking the leaves from the cane ; the leaves cured and immediately stored are equal to hay for fodder. When the crop is raised for fodder only it can be shocked in good sized shocks well tied up, and remain in the field to be hauled during the winter as wanted to feed out. The grinding the cane and reducing the juice to syrup and sugar is a branch which properly belongs to the manufacturer who is supposed to have all necessary machinery and appliances for its proper reduction and the process is here omitted.

#### **Culture of Indian Corn.**

*Seed.*—It is peculiarly annoying to the farmer, having been to the trouble and expense, of planting a crop, to find that the seed from a slight neglect or oversight fails to grow ; in no crop is there so frequent failures as in the corn crop ; all of which might be avoided by using care in selecting and saving seed. Instead of going to the crib and selecting as many do, select when harvesting the earliest ears from stalks bearing two or more ears, have those well filled out over the end, seed set close together with no vacant places or openings between the rows, large kernels with small cobs ; leave two or three husks on each ear and braid them into strings of about two dozen each ; hang them up in the attic of your buildings, where they will keep dry and not be disturbed and have a free circulation of air around. When wanted for use, break, or chop off, both the tip and butt end of the ears, using the middle portion only for seed.

*Manure.*—Corn is a gross feeder and needs any quantities of fertilizing material to feed on. We find no failure in good stable and yard manure to fulfill all requirements when properly applied ; these can be greatly increased in quantity, while the quality is scarcely affected, by composting with peat, muck, etc. An application of twenty loads, spread, well fined, and plowed in to the acre, will give the crop fair usage and keep the land improving.

*Plowing.*—As early in May as possible cart on and plow in your manure at least ten inches deep ; the narrower the furrow slices, the more thorough the breaking up the soil and the better for the crop, etc



The land should be harrowed thoroughly to pulverize any coarse lumps or sods, etc., the harrowing to be done immediately before planting.

**Planting.**—Usually but little is gained in putting in the seed before the ground has warmed a little, so that it may grow right along as soon as it germinates. Lay off your rows  $3\frac{1}{2}$  feet apart with a suitable marker; one made similar to a sled, with three runners and a guide, to mark three rows at a time, arranged to be drawn by a horse, is perhaps as good as any. The hills are made  $3\frac{1}{2}$  feet apart, and into each about half a pint of poudrette is dropped; on this drop the seed, four or five to a hill, having previously rolled it in plaster; now with the horse coverer arranged to cover at the right depth, cover the seed. The corn can be dropped by good steady boys. I prefer to plant in quincunx instead of rectangular form, as the crop is more evenly distributed; the extra work being more than compensated for by being better done by hand, as the more thorough the cultivation, the better the returns.

**Cultivation.**—Should be commenced by the use of the cultivator, followed by the hand hoe, stirring the soil around and between the plants, and removing weeds as soon as the young corn has come up and the plants distinguished a distance of 40 rods. The cultivation should be repeated at intervals of twelve days, till the corn gets so large there is danger of damage in going among it with the horse and cultivator. Very little raising of the ground around the corn is necessary, as near level culture is preferred. Three to four stalks to a hill at first or second hoeing. Pull or cut any weeds that may grow after the last hoeing.

**Harvesting.**—Is best done by cutting up by the roots with a corn knife; when the husks begin to open and the seed is seared over is the proper time for cutting. Sixteen to twenty hills are put in a shook. The corn is cut, and instead of being laid down, as a hill is cut it is immediately set up beside of a standing one, and when three or four are thus placed a stalk is tied around them to hold them together; the butts of the stalks are firmly placed on the ground, standing as near upright as possible, and the whole shook as built is pressed close together; if the weather be fair and still, the shocks may be allowed to stand over one or two days before tying up; they should be firmly and securely bound in at least two places, near the top, and again a little above the ears. The binding and setting of the shocks upright and firm is important to shed the rain and prevent blowing down. It may remain in the field till the corn is ripened and the stalks have cured, when it should be husked, the stalks bound in suitable bundles, housed, or stacked and well secured with thatch covering from rains and wet. The corn should be cribbed in suitable cribs in the corn barn, or other suitable shelter; the cribs should not be over three feet wide at the bottom, and five at the top, and not to exceed ten feet in height, open to a free circulation of air under and around.

South Windsor, Conn.

WM. H. WHITE.

**Productive Sheep.**—The Kingston Journal states Mr. D. W. Dubois of Libertyville, Ulster Co., has 27 ewes, from which he raised this season 40 lambs. He sold the lambs for \$204. From the ewes he sheared 114½ pounds of wool which sold for \$65.41, making a total of \$269.41.

## PREPARATIONS FOR WINTER.

BY A HOUSEKEEPER.

**Brandy Fruits.**—Pears should be peeled, the stems left on. Peaches should be laid in weak lye until the fuzz, but not the skin, will wipe off clean. Plums, cherries, grapes, and similar fruits, are preserved whole—grapes in bunches. These small fruits are put in jars and a rich syrup of sugar and best brandy poured over them hot; this repeated several days in succession. This process makes the best fruit, but the prettiest is made by pouring the syrup over cold. Peaches, pears, &c., should be simmered in syrup until tender, not shrivelled. Enough of best brandy added to the syrup in which they were boiled to flavor well and cover entirely. These anti-temperance exhilarants are very palatable and popular.

**Drinks.**—Shrubs are made of the juices of fruit, such as lemons, currants, raspberries and blackberries. Express the juice as for jelly; as long as these fruits are around you fresh, use the juice without boiling; preparing as you would lemonade, by simply mixing sugar, water and nutmeg grated over—ice, of course. For keeping, the juice is prepared as for jelly, and boiled to a syrup and bottled. When used dilute with water, and if not agreeably acid, use some tartaric acid with it.

**Wines.**—Are the juices of grapes or other fruits, which are, after fermentation, bottled and in inverse ratio to other things are more valued the older they get. Any careful housekeeper may make better drinks than are to be bought under the best brands. But they are expensive and troublesome, and, morally considered, had better be dispensed with as a beverage; but being useful in sickness, and indispensable to fine cooking, we give a few receipts, that the house-keeper may have them pure.

**Gooseberry.**—The fruit gathered when half ripe; bruise them; press out all the juice. To every gallon of the fruit allow 3 pounds of best loaf sugar. If you have a few gallons, five for instance, let it stand in some cool place for a week, draw it off clean and after standing a fortnight again bottle.

**Currant.**—To 12 gallons bruised currants put 20 gallons of soft, pure water, and let it ferment. Then add half a pound of sugar to each gallon of liquor. Some persons add lavender leaves or spices; we think the purer the better. Allow to the above quantity of wine one gallon of spirits. Draw off the lees in a month.

**Raspberries, Blackberries or Elderberries.**—make good wine. Procure the juice, allow  $1\frac{1}{2}$  lbs. of sugar to each gallon of liquor. Clarify by boiling with whites of eggs mixed in, for 20 minutes. When cool and settled, strain off the liquid and add some yeast. When fermentation ceases, bottle.

**Grapes.**—Gather fully ripe grapes, on a dry day; pick out all unripe or decayed ones. Mash them in clean, sweet vessels. When fermentation takes place fully the mass will boil like a pot. When this subsides press out the juice fully. A cider press answers perfectly. If the juice will float an egg so that only a part as large as a quarter of a dollar is visible, it can be made pure wine. If the egg sinks, add good brown sugar until it rises. Put it into a cask in a cool, quiet place, the vessel even full, so that it can cast out the impurities that will work up. Reserve enough liquid to fill up repeatedly through the day, so this purification may go on. After eight days put in the bung loosely; after eight more drive it in securely. The cask should remain after this undisturbed for six months; it may then be drawn off and bottled, but the wise in these matters say it ripens best on the lees.

## THE NEW-ENGLAND FAIR.

The New-England Agricultural Society opened the season of Autumn Meetings last week at Concord, New-Hampshire, with a very successful and interesting Show. In many classes superior to that of 1864, at Springfield, in nearly all, the entries were more numerous, and in some the display would have been creditable to any Society in the Union. The number of Cattle present we understood from the Secretary to be as follows:

Short-Horns, .....	110	Jersey and Dutch, .....	45
Devons, .....	63	Working Oxen, .....	43
Ayrshires, .....	32	Grades and "Natives," ..	43
Fat cattle and calves, .....	16		

The show of Short-Horns was of higher than the average merit throughout, and included many individual animals particularly good. As was to have been expected, H. G. White, South Framingham, Mass., and Burdett Loomis, Windsor Locks, Conn., were leading exhibitors—the latter taking the herd prize with his most charming little 4th Lord Oxford, of Thorne's breeding by 6th Duke of Thorndale from 2d Lady of Oxford, and six females, including Vena by Sheldon's Imperial Oxford. But the case was very evenly balanced, and when the committee came to decide the sweepstakes as to best bull and cow of any age respectively, the greater age and Duchess blood and excellent promise of Mr. White's 9th Duke of Thorndale brought him out at the head, and among the cows Lady Mary, by Hotspur, from the same herd, also led the van. A third party however ran closely for this latter honor, G. T. Plunkett, Hinsdale, Mass., having put in for the sweepstakes with Lullaby, a calf of 6th Duke of Thorndale from Lady Margaret, not owned in New-England long enough to compete in the regular class of her own sex and age, and a very sweet thing indeed. Samuel Appleton, Southboro, Mass., made a good show for the herd prize, with Matador by 3d Duke of Thorndale to lead off; Carlos Pierce of Boston and Stanstead, C. E., was on hand with Monitor and his female companions; A. M. Winslow and Sons, Putney, stood for the honor of the Green Mountain State, with Rising Star, and among others two Lady Sales; and Josiah Fogg, Deerfield, represented the rich valley pastures of Franklin Co., Mass. Thus, remembering that the "herds" referred to were but a part of the stock shown by several of the parties named, and that in addition to them there were numerous other exhibitors, among whom may be named Richards Bradley, Brattleboro, Vt., the Allens of Vergennes in the same State, L. Dole and Barney & Dole of Claremont, N. H., Robt. Elwell, Langdon, and others,—it will be seen that competition was brisk, and the task of the judges by no means a sinecure. With such a start it cannot be said that the Short-Horn is unlikely to hold its own in the East.

The Devons were a fair lot, and some of them superior. E. H. Hyde of Stafford, Ct., was a large exhibitor, fully maintaining the credit of his herd. Massachusetts was represented by D. B. Merrick, Wilbraham; H. M. Sessions, South Wilbraham; Wm. Eames and N. Washburn, Worcester, and possibly by one or two others; Vermont by D. Davis & Son, Windsor, John Brockway, Hartford, etc.; and some were also shown from New-Hampshire.

In the Ayrshires present we were rather disappoint-

ed, though President Loring, Salem, Mass., William Stark, Manchester, N. H., and quite a number of other exhibitors from those States and from Maine, afforded a good illustration of the characteristics of the breed, with now and then a pretty specimen among the young things, and a tolerable lot of cows. Dutch Cattle were shown by W. W. Chenery, Belmont, Mass., and Carlos Pierce; Jerseys by R. Bradley, W. S. Lincoln, Worcester, N. Fines, Lexington, W. Stark, Isaac White, and others, and there were several Kerys and one or two Suffolks also in the ring. The display of grades and natives was creditable, if perhaps not quite as striking as last year at Springfield; the Working Oxen we missed, and cannot report on; but the ring of Fat Cattle was pleasant to look at, having the unwieldy Gen. Grant to head the ring, with the thirty-six or eight hundred encased in his smooth white hide, and the merit of having earned \$10,000 for the Sanitary Commission by the liberality of his owner, Carlos Pierce, in sending him to and fro over the country. A very large heifer was also shown, and purchased before the close by Mr. Pierce, who will see what farther feeding can do for his massive pets. Aside from these there were one or two of less gigantic proportions, but of symmetry and compactness which would perhaps sooner commend them to the feeder's eye; we regret not to have taken a note of their ownership.

The show of Horses was in many respects a decided improvement upon that of 1864, and although we heard Vermonters compare it unfavorably with the exhibitions sometimes made at their own State Fairs, it was certainly entitled to a high rank, and cannot be passed by without details. The thorough-breeds, as was to be expected, were not in very strong force, and included some of the same animals, we believe, from W. W. Chenery, Esq., and others, that were shown at Springfield; but the half-breeds were more numerous than last year, and in the class of Saddle Horses there were some very nice animals, which showed considerable breeding. Of the General Utility classes, those of the younger horses were the best filled, and this was perhaps the strongest point in the part of the show under review. Moreover, as we were assured by competent judges, who devoted more time to the horses than we could spare, the young stock manifested better breeding, as a general rule, than in 1864, and better size. The Morgans were not out in so strong force, to be sure, but perhaps to the betterment of the exhibition. What there were shown, included an unusual proportion of very good size and style. The good results of crosses of Black Hawk or Justin Morgan descent upon Hambletonian mares were noteworthy, and we were told that nearly all the stallions claimed the latter blood in the veins of dam or grandam. Of the particular horses which deserve remark, without any disparagement of others we may refer to the following: Geo. M. Patchen, Jr., owned by B. D. Godfrey, Milford, Mass., in the class of stallions eight years old and over, was a very superior animal in style and action; the class five years old and under eight, numbered 15 or 16, several of them very good, and of these Prince especially attracted our attention—he was raised by Wilder Pierce of Boston, and shown by the son of that gentleman, Carlos Pierce, who intends to put him in training another season, as, though



now 6 years old, he has never been trotted at all, notwithstanding the excellent promise of speed he affords. Standing 16 hands and weighing about 1,150 pounds, he has admirable style as well as good size, and is a credit to his breeder in all respects. In the class immediately succeeding we find nothing noted, but in that of three-year olds, Mr. Pierce also exhibits Black Diamond, Jr., a Canada cross with the Black Hawk, and a very clean limbed, stylish colt of much promise. Among the mares with foals at side, J. G. Wood, Milbury, Mass., had a fine bay mare with a colt by Volunteer, and B. D. Godfrey, Milford, showed Lady Stevens with her colt by Patchen—both good mares and in a good class. Among the Mares and Geldings P. W. Jones, Amherst, N. H., exhibited the now quite famous mare Empress—also a Cassius Clay mare, 3 years old, out of an Abdallah dam, standing 15:3, blood bay, rangy, and displaying remarkable signs of speed—also another Cassius Clay mare, 5 years old, for which, as we were told, \$2,000 has been refused. Among about a score of teams competing as Matched Horses, there was nothing finer, we venture to assume, than Mr. Carlos Pierce's 16 hand and most perfectly matched pair of Black Hawks, full brothers, without a white hair, unless just above the hoof, and working together as kindly as if animated by a single set of muscles. As a four-in hand team they took position as wheelers with another pair, but lately in the possession of the same gentleman, to lead, also black, and making up a fine turn-out. A grey four-in-hand team, also much admired, was made up by W. A. Tower, Lexington, Mass., and Waldo Pierce, Bangor, Me. Among others in the display of matched horses, the fine team shown by Samuel Appleton, Southboro, Mass., should not be overlooked. Of Saddle Horses the show was an excellent one; we noted those of Carlos Pierce, a high-bred Kentuckian, and of S. F. Twitchell, Framingham, also well-bred, and we intended to have examined others of the class, had not time failed for the purpose. Of Draught Horses the show was quite meagre. As to the trotting and the numerous matches which came off we have nothing to say, unless to mention the presence of old Ethan Allen—our opinion having been so decidedly expressed heretofore that "trials of speed" are *wholly out of place* on the show grounds of an Agricultural Society—real utility and elegance being as clearly manifest to the judges upon examination of style, action, etc., in a ring or upon a short track, as they would be upon a contested match in which a few seconds' difference of speed, might (and often does) carry the prize from a really useful animal to one of no practical value as a breeder, and of very little indeed to the community or his owner. And it is a most dangerous thing, as all experience has shown, for the permanent prosperity of a Society, to foster the taste for these matches, not to refer to the encouragement thus afforded to high betting and the profligate use of money.

The only remaining department of the Show which we shall notice at length, is the Sheep, and these must now be referred to more briefly than we had intended. We understood the representation to be about as follows:

	No. of Entries.	No. of head present.
1. Long Woolled,.....	66	241
2. Middle Woolled,.....	63	303
3. Merinos,.....	116	340
4. Fat Sheep,.....	9	.....

The above is the order of the prize list. Under the first head were the Cotswolds of Burdett Loomis and Byron Loomis, Suffield, Ct., a very good display, R. Bradley, Brattleboro, and others; the Leicesters of E.

R. Andrews, West Roxbury, Mass., N. Batchelder, Epping, the Allens of Vergennes, etc.; the Texel sheep of W. W. Chenery, Belmont, and though not properly entered in this class, the Angora goats of the same gentleman. Burdett Loomis, we were pleased to learn, has a new importation of Cotswolds now *en route*, comprising 15 ewes and a yearling ram, from the best English sources. The 2d head includes South-Downs from such excellent flocks as those of H. G. White, some of whose pens, if space permitted, would be worthy of special notice, G. T. Plunkett, Samuel Appleton, J. B. Sanborn, East Concord, Thomas Buffum, Newport, R. I., J. T. Hoyt, East Concord, and others; Hampshire and Oxford Downs from Wm. Parker, Suncook, Carlos Pierce, etc.,—altogether considerably exceeding our expectations as to a display of Mutton sheep, and illustrating the very gratifying advance they are making in popular favor.

Of Merinos, the Atwood family was chiefly represented, and though not including competitors from some leading flocks, the display was a great improvement in general character, upon that at Springfield in 1864. Some of the pens exhibited by W. R. Sanford and O. S. Branch, Orwell, Vt.; L. C. Mead, Cornwall, Cushing and Boynton, Woodstock, N. Richards, Vergennes, Josiah Cowles, New Haven, J. D. Wheat, Putney, Carlos Pierce, and others, which we more particularly examined, we should be much pleased to refer to in detail. There were a number of exhibitors also from New-Hampshire. The valuation placed upon many of the rams, young and old, would have surprised any one not familiar with the developments of the past few years in this direction. But it is gratifying to note that we saw and heard nothing whatever of the "American Merino" name; and the "Infantado" pedigree was only mentioned with a smile. More than one pen was labelled "Atwood Merinos," and this was the only answer given, so far as we could learn, to frequent inquiries as to what the sheep were, from spectator to breeder—except that when some more close investigator would use the other names in his queries, the reply would be, "Well, *some call them so*." And we could hardly resist the conclusion that while Vermont breeders may not object to the employment of *taking* names for effect in other States, they appreciate very well the real meaninglessness of these names, and at home give them the cold shoulder accordingly.

The Swine were few in number, and we did not see them, though it was said they included some very good Essex and Chester counties. The display of Poultry was quite large. The variety and extent of the exhibition of agricultural implements, was unexpectedly great, comprising assortments from the several leading New England manufacturers and dealers. The show of Fruit, which, with the Domestic goods, Grains, &c., was held at a public hall in the town, was not as extended as at Springfield—the year having been unfavorable, if indeed the locality was quite as good for a large display. Public meetings for discussion were held nightly, and the only one of them at which we were able to be present for a few minutes, was attended by quite a large and interested audience. The range of the discussion, however, was very wide, and we did not hear anything elicited of sufficient point to report.

Financially, we presume, the Show must have been a success. The weather, although uncomfortably warm, with thick clouds of dust, was favorable to the presence of a crowd, and on Wednesday and Thursday the whole place was completely thronged. The officers and friends of the Association are to be congratulated on the evidences of improvement afforded upon their previous efforts, and the influence of their second Show cannot but be most beneficial in many departments, in promoting the progress of New-England agriculture, and the improvement of New-England stock.

L. H. T.

## CONCRETE BUILDINGS.

MESSRS. EDITORS—Allow me through your columns, to reply in brief to W.'s inquiry in regard to the mode of building concrete walls, and their durability.

In June, 1857, we laid the foundation for a barn for horses, wagons, &c., by cutting the earth perpendicularly to the bottom of cellar, to correspond with the outside of the walls, and secured temporary boards to hold the inner side, leaving a space of two feet in width to be filled in with a layer of coarse stones, followed by a layer of mortar made of coarse gravel and oyster-shell lime, thoroughly mixed, and carried from the bed to the walls in pails by hand.

When the walls were raised to the height desired for floor, as soon as hardened sufficiently floor timbers were laid directly across the walls which served as staging for the next story.

Above ground we retained the walls in form till dry, by means of inch pine boards one foot wide, cleeted on the outside, the cleets extending one inch above the board, held in place the bottom of the board above, and resting on it. The boards were held in place, one on the outer, and the other on the inner side of wall, by  $\frac{3}{4}$ th inch iron rods headed at one end, with a thumb screw on the other to allow its easy removal.

We made the walls of the lower story 8 feet high, one foot thick, and raised the walls one foot each day around the entire building; used two tier of boards, taking off the lower tier and placing on top of the ones raised the day before.

In this way we erected the walls of a building eight square, 16 feet sides, from the first to second floor, in eight days; gave it a few days to harden, laid on floor timbers, and proceeded in like manner with second story of same height, with walls 10 inches in thickness. The walls of this story were raised eight feet in six days by laying two courses a day, which though safe in this instance I would not recommend as there is danger of falling of its own weight when green. The walls were now complete, roofed, and remained unprotected from the weather. To give the building a finish the walls have been plastered, the inner side with lime mortar; the outer side, a portion of water lime or cement, added, and colored to suit the taste of the owner. We also carried up division walls of the same material, at the same time and way as the outer walls. The doors and windows we made by setting posts and frames in the walls, same as for brick or stone. For this a joiner is required, and perhaps to properly plumb the walls. All the other labor was performed by our farm hands, under our own supervision, and the walls stand as true and firm as if laid of brick by skillful masons. The material used were small stones such as we picked off the fields to clean them for the plow, machines, &c., and coarse gravel, dug from a bank close by, mixed as before stated. The stones were laid by hand. Nothing was used to give the walls adhesion but the lime, oyster-shell being used in preference to stone lime, because easier obtained.

So much for success; now for failures. The above building was completed in August. We then proceeded to build a piggery 20 feet square, joined to one

side of the barn—giving the pigs access to the manure celler under the stables. The walls were to be raised 10 feet high, in the same manner as the others had been; but being anxious to complete it, and having met nothing but success, we rushed them up three or four feet per day, using, to retain them, more courses of boards. All went well till the last course was being put on, when the green mortar underneath gave way, and the walls came with a crash to the ground. The season was now getting late, but we immediately started again, using over the same material,—giving it another mixing in the bed,—and succeeded in having walls sufficiently hardened to withstand early frosts which followed, and make one of the warmest and most comfortable piggeries in winter, and coolest in summer, that I have ever seen. The same is true as a stable for horses. Water seldom freezes inside of the walls, and the upper story keeps hay in as good condition as a wooden building.

The cost of the above was much less than wood, while it possesses many advantages over either wood, brick, or stone. It is as well adapted for houses as barns, and a cheap and durable way of making fence walls—one built at the same time as above, remains in good condition with no protection.

Mount Carmel, Conn.

I. H. DICKERMAN.

## ROAD MAKING AND ROAD MENDING.

It was very provokingly amusing to read your recital of "road mending," as generally practiced by overseers of highways. But one very important part of road-making you did not witness; it is styled water-breaks, (or more properly *break-necks*), which are made to turn water from the travelled road. Two ways are practiced in making them. One is called the swallow-tail form, while on the other the furrow extends diagonally across the whole track. They are made with a team and plow to cut a furrow; then a ridge of earth is thrown up on the lower side of the furrow, and it is completed.

All the difference in the two modes is, (if you are driving fast,) one will throw you out sideways, while the other will hoist you perpendicularly, unless you hang well to the vehicle; and thus you will jolt over them until fall; when the earth by frequent rains becomes soft, the wheels of a loaded wagon will cut through them, and the water will take its usual course, carrying the misplaced earth with it, when a break is most needed. And so it is year after year, jolt, jolt.

Now it is very easy to talk about road-making, but theory and practice are sometimes wide apart. Water does more injury to the road-bed than the travel, either by remaining in the wheel tracks and hollows or by washing. For when the road is dry there will be no ruts or holes made; the travel will make and keep them smooth.

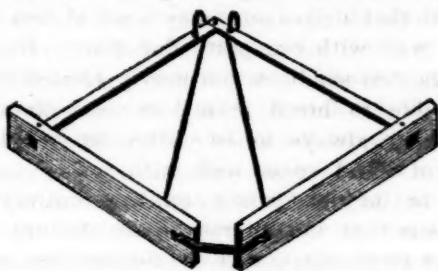
Districts that have stone (that will break evenly,) or gravel, can have good roads if they will; but where neither of these is to be had, and other than a sandy soil, it is difficult to have good roads the year through.

The main object to be kept in view in repairing roads, is to keep the water that falls from the clouds, or comes from the melting of snowbanks, from remaining on or washing the road. The first can be



remedied by keeping the track smooth; the latter, by proper breaks.

To make and keep a road smooth, take a team and plow in the spring while the earth is soft (or at any such time,) and plow a deep furrow on each side of the *traveled* part, turning it towards the centre; then when it becomes dry enough to pass over it, take a team or two of them, hitched to a road-smoother built in the form and manner illustrated and described below, made heavy by putting extra weight on it at first—pass so that the smoother will work the furrow toward the centre, down one side and back on the other, and so continue doing until you reach the centre.



ROAD-SMOOTHER.

This road-smoother is made by taking hard wood plank, 6 feet long, 15 inches wide, 3 thick, with arms of 3 by 4 scantling, morticed through the plank 13 inches from each end. The other ends halved together with an iron bolt through them to make strong. Two plow clevises are used on the ends of the arms for the team to be hitched to, and a clasp of iron with staples is fixed on behind of the plank in such a manner as to keep the two some 10 inches apart, that the extra dirt and stone can work through. A plate of iron is placed on the front side, at the bottom of the plank, as wood would soon wear off. Old saw-mill saws are used as the best.

Before using the smoother, have all the fast stone dug or pounded out, and afterwards with team and wagon pick up all the stone from the size of a walnut upwards—the smooth to be used,—and stone picked up at intervals through the season, so that if you are out of a night you can drive home on a good round trot without fear or trembling.

These furrows will hold the earth that would be carried into the ditch,—raising the ditch and lowering the road,—and by using the plow in this furrow occasionally, you have this earth to fill the ruts and holes, and tend to raise the road. A little earth carried on at a time will become hard, while the usual amount will not. It is surprising to see what large holes can be filled with this furrow of earth.

The road being hard and smooth when the rains come, most of the water will run off, and what is left is spread over a greater surface; the evaporation being greater, the road is soon dry.

To make a water break, use stone pounded fine, covering the road from side to side—little the highest in the middle—make the rise long and gradual, for then the wagon will pass over without any jolt, and length of stone bed long enough to bear up the load until the force of the team and wagon is overcome—then continue the grade with earth, that there may be no dropping down of team or wagon. Such a break will last years.

Why, Mr. Editor, I fairly ache all over now while

writing about road making, knowing the thumping, jolting, pounding and splashing one has to endure every time he passes over the road. It was but yesterday I passed by fast stone eight or ten inches high, and as much across, that wagon wheels had worn much, and at the same time people cursing the mechanic for using such poor timber and iron.

I hope the subject of road making will be kept before the public often enough and long enough until they become convinced of the bad use they are making of self, teams and vehicles. ONONDAGA.

#### CORN ON SWARD.

MESSRS. EDITORS—In reply to L. R., how he "shall manage for corn on sward," allow me to suggest my method. Early in the spring apply a good coating of fresh, green or coarse manure, and just before he wishes to plant, strike it out or ridge it by turning two furrows together so that they will just meet, thereby covering the manure, leaving a narrow balk between the ridges, so that the rows will be about four feet apart. Plant lengthwise, about two feet apart, three kernels in the hill—plow up the balk, and cultivate without breaking the ridges. If he wishes to test the two methods, let him try part of the field as the Co. GENT. proposes, and the other as I propose, and report the result. If his field is sidehill, begin at the top to ridge. B. H. ANDREWS. *Waterbury, Conn.*

#### The Nebraska Seedling Gooseberry.

This gooseberry is a seedling of the Nebraska Prolific. It is larger than Houghton, or any American variety—the fruit brilliant green with light pink, as in the Lancashire varieties. The flavor of the fruit is superior to twenty of the most popular English kinds, grown side by side the past season, and this was the decision of many gentlemen this season, who ate the fruit. It will not mildew in any climate where the gooseberry grows. It bears enormous crops of fruit, very nearly, in clusters.

The canes are very upright, growing about four feet high, thickly set with deep red thorns; the fruit is set upon long stems, hanging well out from the canes, and the fruit can be picked with little danger of wounding the fingers. I have sent a few plants to eastern cultivators, to test them in other localities.

*Nursery Hill, Nebraska.*

R. O. THOMPSON.

#### Recipe for Milk-Rising Bread.

I see you wish to receive a receipt for making milk-rising bread. I therefore give you a grand receipt for making it.

Take two cups of boiling water, two cups of new milk, and one teaspoonful of saleratus—make a batter of it, and put it in a tin pail to rise. Keep the water a little more than luke-warm. The cause of its turning acid is not being kept warm enough, and letting it stand too long.

Try this receipt, and if your bread is not good, send it all to me and I will send you good in return.

MARY D.

CRACKS IN COW'S TEATS.—Glycerine is the best article for curing cracks in cow's teats. It is healing and cooling, and should be applied twice a day after milking.

## DRAINING A SWAMP.

MESSRS. EDITORS—I desire to improve some eighty acres of swamp land, and will thank you to advise me how to proceed. Part of the land is overflowed from April to August, and at such times has the form and appearance of a lake; but having no outlet the water lies there until it evaporates or dries up during the summer. The overflow is caused by thawing of the deep snows after winter. There are 50 acres thus overflowed. The face of the land is clear of timber and brush of all kinds, except about two acres which dry up first, and on which I have cranberries growing. The balance of the 80 acres is covered with swamp muck, two or three feet deep, on a portion of which grow large rushes six, seven or eight feet high, with a border of six or eight rods of wire grass.

I propose to cut a ditch one-half a mile long, averaging 22 inches deep, with 22 inches fall in the distance named. Would this draw off all the water and answer my purpose?

I find a mixture of sand and blue marl underlies the swamp muck; but where the grass grows is a mixture of swamp muck and white sand. Will it pay to drain it? Can it then be plowed, or will it answer better for meadows? If the latter is advisable what kind of grass will be best adapted to the ground?

Some of my neighbors tell me that when drained the piece of ground will be good for nothing, while others assert it will be a great improvement. Will the editors and readers of the *Co. GENT.* come to my aid with such advice as experience will recommend?

*Manistee, Mich.*

HUGH MCGUINEAS.

There is no question that the drainage of this swamp, if properly done, would soon render it a very valuable piece of land, yielding heavy crops of grass, corn, &c. Our correspondent omits to inform us what amount of descent may be obtained for a main drain cut several feet deep, as it should be, or whether this would be at all practicable. By cutting off all surface water which comes down upon it from surrounding lands the drainage would be more easily effected. A channel of water 2 feet wide and 1 foot deep, descending 22 inches in half a mile, flowing through a smooth, uniform and even bed, would, according to the rule given in *Thomas' Farm Implements*, page 192, discharge about two cubic feet per second, or fifteen hogsheads per minute. This would be over 20,000 hogsheads every 24 hours. The next question is to ascertain whether this will be sufficient for the drainage of the eighty acres. An inch of water is equal to 360 hogsheads per acre, or would be nearly 30,000 hogsheads for the 80 acres. The ditch, therefore, of the size and descent we have mentioned, would carry off two-thirds of an inch every day, which would be sufficient on ordinary occasions, but in time of thaws and heavy rains, especially if water comes down from adjacent lands, it would not well answer the desired purpose. It would be better, therefore, to make it more than twice the width unless it can be cut correspondingly deep. A wide, open main drain through the centre of the swamp, into which branches could discharge at regular intervals would doubtless effect a complete and perfect drainage, and render the land equal in value to any in the country. After the work

is accomplished, should the soil prove too light and porous, a moderate dressing of heavier soil, or of sub-soil thrown up from below, would probably prove of great value.

## Breeding and Management of Colts—II.

The choice of stallion must depend very much upon the mare intended to breed from. There should be a mutual adaptation between sire and dam; and, taking it for granted that every farmer owns a brood mare, the next thing to be done is to select a horse that is in every respect calculated to cross well with the mare he has, which is by no means an easy task, for the horse that strikes our fancy is not always the one to cross well with our particular mare. He may be too large, too small, or too nearly related to make it advisable to breed from him; and there is another thing always to be borne in mind—some strains of blood cross well with other particular strains or families, while on the contrary, there are crosses that never produce satisfactory results. We have an illustration of the former class, where a great many readers of the *Co. GENT.* have an opportunity of observing it. It is well known that Hamiltonian crosses remarkably well with mares of old American Star get, so much so that it rarely fails to produce an uncommonly fine animal. When this is known, it is good judgment to follow what appears to be a sure method rather than experiment, and on the other hand it is just as good judgment to avoid crosses that experience has taught us result in disappointment. Blood should be on the sire's side. This is another important matter.

As long as we put our mares to horses of purer and better blood than they are, we are improving instead of degrading our stock of horses. A great many farmers think that blood is of no consequence except for racing purposes, but it is just as much more valuable than our common stock before a plow, as it is on the turf. To have quickness of action, endurance, or lasting qualities, some thorough blood is required. Well bred horses are less liable to accident or disease, bone affections, &c., than cold-blooded stock; they keep easier, and will perform more labor on less feed, and as a general thing will live to a greater age. It makes a great difference to a farmer whether he has a team of well bred horses, that will plow two acres a day, or one of common stock that will only plow an acre and a half a day on the same feed or more, and there is that much difference, and it will increase as the two grow older. I do not wish to be understood that a thorough bred horse trained to run races is better for a plow horse than any other, for I do not think so, but a certain amount of thorough blood is necessary to make an energetic enduring horse for any purpose.

In choosing a stallion it should be done with reference to your own mare, and he should not vary in size above or below her, more than two inches, and should be short backed, close coupled, compact built, with round hips, not broad, and flaring like the brood mare's, a good set of limbs with plenty of bone, good feet, a good head, good temper, and thoroughly sound in every respect. If the mare is young the horse should be in his prime, or older than she is, but if she is old he should be younger, to give vigor and strength to the stock. If the mare is defective in any



particular, she should not be put to a horse having the same defect, or even an opposite one, but one should be selected as perfect as possible in that respect.

Very small mares should not be put to enormously large horses, as no good can come of such a course, and it is not a good plan to put a very large mare to an exceedingly small horse. If one would be perfectly certain in breeding, some knowledge of the parents of both sire and dam is indispensable. If they and the parents are all sound and right, and the points all well adapted to each other, the offspring will certainly make a valuable animal. The improvement in the stock of horses in this country is owing to the breeders taking more thought on the subject; they have made it a study; by that means and experimenting, they have reduced it almost to a science.

The turf, and agricultural societies throughout the country, have done a great deal towards producing this result, and have very nearly done away with the old hap-hazard hit or miss away of breeding. All classes of breeders take more pains, and feel greater pride in their stock.

I suppose there never was so great a proportion of good horses in this country as at the present time.

Glen Cove, Aug. 25.

H. C. W.

#### WHY BEES ARE KEPT.

MESSRS. EDITORS—Bees are kept to gather and store honey, for the benefit of their keepers. When this object cannot be secured, a swarm of bees is worth no more than a nest of hornets. When a locality is supplied with a sufficient number of colonies to gather the honey produced, additional swarms are not barely valueless, but are absolutely a nuisance. For so much honey as they gather and consume is taken from the general stock, without returns to the keeper. It is like boarding more help than can be employed to any advantage. A colony that will give as much surplus honey as five other colonies, is, to the proprietor and public, worth more than the five. For they not only give five dollars profit to the others five, but for their own wintering they draw upon the public stores, from the great field, for only thirty pounds, at twenty cents per pound, six dollars; while the five that give only the same amount of surplus, draw upon the field for one hundred and fifty pounds for their wintering, of the value of thirty dollars. Twenty-four dollars is thus lost from the public stores of honey in the field. This would make a difference of two hundred and forty dollars where fifty swarmers are kept, or ten non-swarmers; about one-half of which could be secured as surplus if non-swarmers are used for the gathering. It is much less trouble and occupies less time, to have charge of and examine one hive than five. This would be very sensibly and feelingly discovered, were we called to the care and frequent inspection of fifty hives instead of ten. "If all the honey in the fields in one town was the property of one man, all the colonies he had, more than enough to gather the honey, would be a dead loss to him. What is true of one man is true of that distinguished individual, the public.

Mr. Quinby supposes a swarm of bees in a non-swarmering hive, will gather and store five times as much surplus honey as the same swarm in a swarming hive. One will give one dollar's worth; the other will give five dollars worth. The non-swarmer will give as much as five swarmers. If so, a colony of bees in a non-swarmering hive is worth more than five swarms in swarming hives. If a swarmer is worth five dollars, a non-swarmer

er is worth more than twenty-five dollars where the locality is fully stocked with bees.

If a man with ten swarms of bees in swarmer hives, is located where the country is fully stocked, he would be better off to place two swarms in non-swarmer hives, and turn eight into strained honey and wax, than to keep the ten. He would get the same surplus honey he does now; would receive, in addition, the value of his honey and wax from the eight swarms; and his honey pasture would be improved by retaining the two hundred and forty pounds which the eight swarms would draw from it for their wintering, besides what they consume in the summer, and would have the care of only two swarms instead of ten. If then the ten are worth fifty dollars to him now, with these advantages the two would be worth more than fifty dollars.

If he should have four non-swarmers instead of two, the four would be worth more than double what the ten are now, from the above considerations, and six would be worth more than three times as much. If his ten average him ten pounds each,—one hundred pounds in all,—two non-swarmers would give him one hundred pounds, \$20; four would give him two hundred pounds, \$40; and six would give him three hundred pounds, \$60. This would be the interest of \$1,000 at 6 per cent. Six non-swarmers would gather as much honey from the same field as the ten swarmers, and place one-half of it in the surplus boxes. I think all this may be realized; but allow a margin of one-half, it is still doing more than three times as well as to use swarmers.

JASPER HAZEN.

NOTE.—Should the reader discover any fallacy or error in this communication, the writer would thank him to point it out.

#### HOW TO DESTROY BRIERS.

EDS. CO. GENT.—In your number of Aug. 17th, F. H. T. of Springport, Ky., inquires how to eradicate briars and noxious shrubs.

I have had practical experience, and will give him my method. Any time in August or September, (pay no attention to the moon,) cut them as near the ground as practicable, then plow the ground thoroughly, or if not plowed, pasture it in the spring and summer; sheep are best. If any are left, cut again as above. Do not attempt it in the spring. The best way to increase and multiply them, is to plow them in the spring and let them alone, or sow to oats; by this means you will improve their growth immensely.

Loveland, Ohio.

W. C. PINKHAM.

**The Hop Aphis and Buckwheat.**—The Weekly Radii, published at Canajoharie, states that a hop-grower in the southern part of Schoharie county is confident of having discovered a remedy for the Hop Louse. This remedy "is not to destroy the insect, but to provide some other object upon which the insect will commit its ravages," and it is claimed that the desired result has been accomplished by sowing buckwheat in the hop yards. The discovery was accidentally made, but for two years has been tested, meeting with complete success. "In the case of the hop louse, it has been observed that those yards which were kept free of weeds were more affected with lice than those which were neglected; the inference seems to be that where no other vegetation is allowed in the yards, the ravages of the insect are necessarily confined to the hop, and if something else is provided upon which the insect will feed, the hop will escape its ravages. Buckwheat, being odoriferous, will attract the insect, and it probably offers more nutriment than the hop vine." The experiment is one easily tried; and we shall hope to hear reports of the success achieved.

### How to Banish the Canada Thistle.

EDITORS CO. GENT.—In your number for August 17th, J. M. C. wants "directions for banishing the Canada Thistle." Now I reckon I am the very man who can give them. I have had a half century of experience, and began by cutting thick patches with a hoe, when a small boy. My father's directions were to "cut them off below the top of the ground." This order I faithfully, but wearisomely, carried out, two, three, or four times a year, with some diminution of the extent covered; but it was not successful practice in the way of banishment.

Now, J. M. C., hear and do. Plow your land this fall; put on a wheel cultivator next spring, in good season; furrow in shallow rows for planting potatoes, and plant Peach Blows, putting in small pieces, one foot apart in the row. When the shoots appear a little above the surface, pass over the ground with a Scotch harrow or its equivalent. In a short time hoe the potatoes and make it a point not to leave a thistle standing. If you have a cultivator, or some similar implement, it will materially help in the accomplishment of the work. Look *sharp*, very sharp, and allow the enemy no standing point. Repeat the process, and keep repeating it, at all times when the enemy appears.

I think you should hoe the potatoes not less than three times in the month of June, besides pulling out at other times, remembering June is the *nick* of time. Do not look for the old of the moon, the new of the moon, or the middle of the moon; but watch for the thistle during the whole of the moon. If you, J. M. C., are not persistent enough to banish the Canada thistle during the month of June, then the Canada thistle will be persistent enough to trouble you and goad your laziness. Faithfulness for one month will do much towards "banishing" the thistle; but time following must not be neglected, if you wish to secure perpetual and returnless banishment for the pest.

But will not Buckeyes or any other potatoes, do as well as Peach Blows? No, sir! Buckeyes are too early in ripening, and the vines are too short. Peach Blow, on the other hand, is a late potato; the vines are heavy and keep green later in the fall than any other potato with which I am acquainted. The heavy growth of the tops leaves little or no room for the thistles in the after part of the season.

Fall plowing is not very essential; but I would usually plow not less than seven inches deep, and at any rate make the soil mellow and fine.

J. M. C. you have the "directions for banishing the Canada thistle" which I have found very effectual for attaining the end in a single year—receiving such a fine crop of potatoes as to afford good returns for the whole of the labor. It is now for you to decide whether the thistle shall be *banished* or not. How do you vote?

What was Canada Thistle made for? For the double object of cultivating the ground for man's use, and compelling man to cultivate the ground for his own benefit—to banish idleness, the scourge and curse of humanity, high or low, rich and poor. The deeply penetrating shouldered roots of the Canada Thistle search all the ground for life and growth, and bring to the surface in successive seasons, vegetable matter,

which, decaying, enriches the land, and thus prepares the way for the husbandman. The tiller of the soil must then banish the preceding elaborator, and show, by his industry, that he is worthy to succeed; and, also, that he is willing to occupy the land from which he seeks to dispossess an occupant, appointed by the Creator to hold possession until earth's rightful tenant evinces sufficient faith and patience to subdue it

### Snap Dragon

I presume may be exterminated by a similar process. My only experience in regard to "Butter and Eggs" being this: Several years ago our cemetery was infested with Snap Dragon, set out to beautify the graves of the dead. Its steady enroachments threatened to occupy the whole area, and the evil was pronounced incurable. One or two individuals, whose faith in tradition was of the Thomastic order, moved a subscription to banish the evil. A person was engaged to hoe over the ground several times in the summer. The second year appearances were very small and thin; and no sign of the plant is now visible there.

What is the use of Snap Dragon? To teach men perseverance and punish such as refuse to learn.

Cheektowaga, N. Y.

E. S. E. PRIMAS.

### Buckwheat in "the Moon" and other Items.

MESSRS. EDITORS—I am a subscriber to your valuable sheet, and propose to contribute a few thoughts, more particularly to call forth the opinions of others, thereby gaining information for myself; yet should some thought edify the reader, I should be happy. Firstly I will speak of buckwheat. It is my observation, (having heard it remarked too,) that this grain, sowed in old moon, will all be ripe at once, while that sowed in new moon will be somewhat in blossom, some berries green, and some ripe at cutting time. What does the reader say?

*Tying Horses Head and Feet.*—For the benefit of my associate farmers, I will say that I came well nigh injuring a valuable unruly horse for life, by tying her head and feet in pasture. Has any reader such experience, and if so, what was the effect?

*Bleeding Cattle.*—I find that splitting the tail of cattle about an inch, is the easiest and best way to bleed them. I let them bleed a day or two, till very weak; then if it does not stop, I tie up the tail with rye bran or flour. I find they fatten very rapidly after that. What says the reader?

*Canada Thistles.*—I have concluded that thistles will grow three years from the root, and if kept from seeding for that time, and not plowed, they will die out entirely. I find that sheep well salted will keep them from seeding, and in the above length of time will entirely kill them. Now I have such a lot which I wish to seed. Can I not cross-harrow it with a sharp heavy drag, and then sow my seed? Would it do well? Who has tried it?

*Cook's Patent Spring Whiffletree.*—I have a young and very fine team, and with this whiffletree can plow, drag, or mow among rocks, stumps or stubs, without any fears of banging my team or breaking my tools. No farmer should be without it, who has such obstructions in his land.

*Plow vs. Cultivator.*—In raising corn I entirely ig-



nore a cultivator, although I have one of the best. My reasons are to wit., the cultivator may run as deep as the plow, but how? Just at the middle of the space between the rows, whereas I want the land-side of my plow leaned down close to the corn when it is but four inches high, so that it shakes the hill. Here, fellow farmer, you strike for long ears. The cultivator is very good where grass abounds, but I want the plow used just as much. I have tried muck in the hill this year, and believe it most excellent. What say you?

*Curing Hay in Barn.*—Say, farmer, if you have put that load of hay in rather green, before you put any more on that mow, (after it has laid over night or longer,) just stir it up, and you will get dollars for a few minutes work. Previous to a storm I sometimes have a load or so out quite green; if I have time I draw it in and put on poles, and scatter it around the barn, and the next day or more, go and stir it over, and if it has sweat, put it in the mow. I rather do this than to puddle it in the field after a long rain, and it is certainly worth double. I did so to such an extent one season, that my neighbors said I did not cure my hay at all, but they did not know much I stirred in the barn. Yet in the winter I had the name of having the brightest hay in the neighborhood. Now, Mr. Editor, in writing such a long unconnected gingle, I fear I have wearied your patience. I have twice more such subjects which I thought to put in this scrip, but fearing these are not worth publishing, I will close for the present.

H. C.

*Hillsdale, N. Y., July 10, 1865.*

### FARMING IN CONNECTICUT.

Farming in Connecticut, as in other parts of our land in like circumstances, has very serious difficulties to encounter, some of them almost fatal to success. It shows the energy of the people, that against such impediments they do accomplish so much.

The first I notice is the subdivision of the land, so that farmers hold their land in several detached and often widely separated parcels. In a recent journey into the south part of the State, I came in repeated instances upon a wagon or cart by the side of the highway, loaded with the implements and provisions for the day—the owner in the field at work a mile or two from his home. Again and again I met companies of laborers in wagons with their tools, going to distant fields to their work. When I thought of the time spent in travel, the expense of hauling the manure and crops such a distance, the difficulty of watching over the crops or the stock so far from home, and many other inconveniences which occur to us, I wondered that they have so many good crops. The extent of this evil is almost incredible, to those who have their farms in a compact and convenient form.

Another evil is that their farms are often too small. It is well understood that a small farm cannot be managed with the same relative expense of teams, implements, labor, &c., as a large one. And there is not business enough, and profit enough, to satisfy an enterprising Yankee. This brings me to another cause of discouragement to the farmers. They are surrounded by those who are most successfully engaged in mechanical and manufacturing pursuits, and

who seem to be making fortunes in less time and with less labor than the farmers require. This draws from the farm a great many of the most enterprising of the young men, who are not content to follow so slow a business. Some of them succeed in making a fortune far beyond the expectation of a small farmer, and this makes farming, in view of many, a second or third-rate business, and it loses its respectable standing, and of course is less inviting to those who are ambitious to occupy the best places. And the same cause also affects the price of labor, and makes suitable farm laborers very difficult to be obtained. The skillful hands are better paid in the shops and factories, and ship-yards, or they go on to the water. I was told by a farmer who lives near the salt water, that he could not hire a man for two dollars and a half a day, who could make three dollars, by catching claims, and not work all day. It is plain that their farming, with all the other disadvantages, cannot pay such prices for labor.

These impediments are more potent than any unfriendliness of soil or obstructions from the rocks, for these yielded to the persevering energy of other generations. And there are districts now, out of the reach of these untoward influences, where the success of well directed labor over natural disadvantages commands our highest admiration. But there are many districts of the State where the work of culture has ceased to be progressive; the wilderness begins to return again upon the fields of civilization; and the forest, the brambles, and the sedges and brakes, have got possession of many a fair field, and have surrounded many others, while the owners are retreating, and holding the remainder by a doubtful contest.

*Duchess Co., N. Y.*

N. R.

### What Produces the Currant Worm?

Dr. Fitch says a miller; several others say a certain yellow fly. I say I don't know, but I think that this question is not fully settled. Several weeks since seeing one of these yellow flies (which were then very numerous, though the miller described by Dr. Fitch I have never been able to find,) alight upon a currant leaf near me, I concluded to watch it. After remaining quiet a few minutes, it commenced perambulating the leaf, going first to one side of the leaf, then to another, till it had passed over every part of its surface. It then made a circuit of the entire leaf, carefully scrutinizing every part of its margin. Having finished its examination, it went upon the under side of the leaf, and began to deposit its eggs upon one of the mid-veins. After watching it a few minutes I picked the leaf, when I found four or five small white eggs which the fly had laid, similar in all respects to those which are found so abundantly upon the under surface of currant leaves, and generally understood to be currant-worm eggs. I have killed many of these flies, and almost invariably have found their abdomens filled with the same white eggs. I acknowledge that my observation does not establish any fact, but it shakes my confidence somewhat in Dr. Fitch's conclusion. If Dr. Fitch would give us the natural history of this yellow fly, or any farther information he may possess respecting the origin of the currant-worm, it might help settle this, in my opinion, yet unsettled question. J. H. P. *Franklin, N. Y.*

### THE DOMESTIC TURKEY.

We have spoken of the turkey of nature; we will now treat of the turkey of art—that is the domestic turkey, that makes so interesting a part of our rural economy. They are, next to the common fowl, the most important, useful and valuable of domestic birds, and at the same time that which requires the greatest care in the first months of its existence. When once reared, however, every temperature seems to agree with it.



THE DOMESTIC TURKEY.

To describe the domestic turkey is superfluous; the voice of the male, the changeable colors of the skin of the head and the neck, his proud strut, with expanded tail and lowered wings, jarring on the ground; his irascibility, which is readily excited by a red or scarlet color, are points with which all are conversant. Turkey-cocks are pugnacious and vindictive, and ill-treat the hens. They have been known to attack children; and combats between them and the game-cock have taken place, in which the latter was more oppressed by the weight of his antagonist than by his gladiatorial skill; in fact the bulky hero has been worsted, as he cannot use his spurs with the address exhibited by the game-cock, which, moreover, fights with method.

The antipathy which the turkey-cock entertains for anything of a red color is well known, and, indeed, will never be forgotten by the writer, who at about the age of eight years, having on a red flannel garment, was chased by two of them around a very extensive yard, to our most terrible affright and discomfiture.

The adult turkey, it is well known, is extremely hardy, and bears the rigors of our coldest winters with impunity, even in the open air; for, during the severest weather, flocks will frequently roost at night upon the roof of a barn or the branches of tall trees, preferring such accommodations to in-door roosts. The impatience of restraint and restlessness of the turkey, render it unfit company for fowls in their dormitory; in fact the fowl-house is altogether an improper place for these large birds, which require open sheds and high perches, and altogether as much freedom as is consistent with their safety.

Although turkeys will roost, even during the winter months, on trees, it is by no means recommended that this should be allowed, as the feet of those birds are apt to become frost-bitten from such exposure to the air, on the sudden decline of the temperature far below the freezing point. It must be remembered that the domestic turkey, hardy as it is when adult, is not equal in point of endurance, to its wild relative, bred in the woods and inured to the elements.

Turkeys are fond of roaming about pastures, fences, and the borders of fields: they love to visit turnip

patches, where, besides the leaves of the turnips, which they relish, they find insects, snails, slugs, etc., which they greedily devour. They feast on grasshoppers. In the morning they should have a good supply of grain, and after their return from their wanderings another feed. By this plan not only will the due return home of the flock be insured, but the birds will be kept in good store condition, and ready at any time to be put upon fattening diet. Never let them be in poor condition. This is an axiom in the treatment of all poultry—it is difficult and takes a long time to bring a bird into proper condition, which has been penuriously fed or half-starved.

To the careful observer its habits are interesting, although somewhat eccentric; and what is greatly in their favor, the more we study these habits the more we are pleased with them. There is one trait in the male that is never unobserved. His shouts of exultation when surrounded by female companions, and when calling together their broods of young, may sometimes be heard half a mile. It is wonderful to observe how the little progeny will respond to his voice, if at a distance of twenty or thirty rods in the rear, as led by him in their daily explorations for food, and especially at the close of day, when returning for repose at their usual place of rendezvous and spending the night. It cannot be denied, however, that in this latter respect turkeys are deficient in punctuality, and are sometimes overtaken by night before reaching home. If so, they make an encampment wherever they happen to be. But this is not the result of indifference to home, but a defect in the science of geometry, not remembering how far they have wandered from it, or to a deficiency of astronomical observation, not having observed how rapidly time had sped.

The well-fed male turkey, especially if rendered sociable by a numerous family of female attendants, is a very important character about the homestead. No one is more tenacious of his rights or more complacent in the enjoyment of them. He is an original character, truly; but he has numerous imitators. The incessant pompous display of his plumage has ever been deemed an appropriate counterpart of the human exterior embellishment to attract attention, beyond any claims founded on intrinsic merit. We cannot fail to be amused on seeing either of these animals of the masculine gender thus struggling for the ascendancy; but we cherish less respect for the one in broad-cloth, than his prototype in feathers. Indeed, the latter, although not celebrated for his endowments, presents more intelligence than is usually attributed to him; and, moreover, as the representative of his family, occupies no inferior rank in respectability or elements of being useful. He is led by instinct, if not by reason, to be a pattern of devotion to the safety of the community of which he is the legitimate head. He watches over the turkey chicks with the assiduity of the most faithful shepherd when guarding his flocks. He will never leave them, and is apparently unmindful of his own wants, so long as they require his watchful care.

C. N. BEMENT.

**Smut in Wheat and how to Prevent it.**—Take one pound of blue oil of vitriol—dissolve it in two or three quarts of boiling hot water, in some earthen vessel. Then put it in a pail and fill with cold water. Now take ten bushels of seed wheat, on the barn floor, and sprinkle this solution all over it, and shovel it thoroughly, so that every kernel is wet, and in two or three hours it is ready to sow. You may keep it longer just as well, if you dry it and keep it from heating. This receipt is efficient, but if you have very smutty wheat you may raise a little smut the next year, but none after that. O. PR. Calumet, Wis.



## RAISING TROUT.

[In reply to the inquiry of our correspondent C. W. G., we have been kindly favored with the following answer by S. H. AINSWORTH, Esq., of West Bloomfield, N. Y., who has had much experience in the management of trout and trout ponds.]

EDS. CO. GENT.—Yours of the 2d, requesting me to answer the following inquiries of one of your subscribers, C. W. G., as to the best method of constructing dams for trout ponds came to hand yesterday :

"1. How many ponds are necessary to grow trout successfully ?

"2. Should the muck be removed from the bottom of the ponds ?

"3. How deep should the water be in the different ponds ?

"4. Would it be a good plan to put large rocks in to them for hiding places for the trout ?"

Had C. W. G. said whether he intended to raise trout naturally or artificially, I should have known precisely what to say in answer. The requisite fixtures and plans for the two methods are quite different. I infer however from his inquiries that he intends to breed them naturally, therefore will answer each question accordingly, and in as few words as possible.

The cheapest and probably the best way for C. W. G. to build his dam is with dirt. The dam should be at least 12 feet wide on the top, with a grade of 45 deg. each way, to make it perfectly secure. There must be a sluice put in at the bottom of the dam of sufficient size to drain off the water at will—say from 6 to 12 inches in diameter, according to the size of the stream that feeds the pond. This sluice can be made of 2 inch white oak plank, with a valve at the upper end to let off the water, in place of a gate, which is difficult to make tight.

The water must all be drawn off once in four years at least, and the bottom cleaned of all grass, leaves and vegetable deposit. Trout must have pure, clean, cold water, free from all vegetable decomposition, to increase, be healthy and thrive well.

There must be a flume on top of the dam, or in the bank at one end, of sufficient size to carry off the water at all times, with a wire screen, to prevent the trout from leaving the pond. They are slippery and hard fellows to keep, and will find every hole and improve every opportunity to run away. Hence the outlet must be thoroughly guarded with proper screens to keep the little beauties.

The size of the pond should be according to the volume and temperature of the water that supplies it. The water at the bottom of the pond should never be higher than 64 deg. for trout to do well ; when it becomes warmer than this, say from 75 to 85 deg., the large trout become sickly and die, generally with the congestion of the gills.

In water from 48 to 64 deg. they remain perfectly healthy, grow with great rapidity to a large size, say from 1 to 4 pounds weight each in a few years, if well fed, and look very bright and beautiful.

One pond will answer to grow trout in their natural way about as well as two or more.

The muck must all be removed, and the bottom of the pond covered with sand or gravel to keep the water clear and pure.

The water should be from 10 to 15 feet deep to grow large trout, and to keep the water cold at the bottom. The sun during clear, hot days in the summer will heat the water on top and around the shore to 80 deg. or more, according to the amount and temperature of the water supplying the pond.

The stream above the pond must be well cleared out, and covered with gravel from 2 to 4 inches deep, for spawning beds for the trout to deposit their spawn in. They commence spawning the first of November, and continue to the middle of January. The spawn will hatch in January, February and March, but the young fry will not come out of the gravel until April or May, as they live on the egg attached to them till that time, say from 40 to 60 days. When the egg is all absorbed then they come out to look for food, and are perfect trout, about 1½ inches long, very shy and active, and quick. At this time the parent trout will devour more or less of them unless well fed, but enough will likely escape the old ones to fill a good sized pond to over-flowing in a few years.

All surface water should be kept out of the stream and pond, at all times, so as to keep the water perfectly clear and pure, or the spawn will not hatch at all, or but poorly at best, and will soon all run out.

The small trout will keep in the stream and shallow water during the first year, so as to generally keep out of the way of the large ones, and take good care of themselves.

C. W. G. will find the more of the stream he clears and gravels above the pond for spawning grounds, the better.

Rocks for shade and hiding places for large trout will be very acceptable and beneficial to them.

I send you the following article on growing trout artificially, printed in the Rural New-Yorker sometime ago.

Further experience confirms all I said at that time, but I have learned much more about trout since.

West Bloomfield, Sept. 5. STEPHEN H. AINSWORTH.

•••  
**Equine Curiosities.**—It may not be generally known, and so we place it on record, that Buffalo can now boast of having within its limits thirteen Shetland ponies, three of them the smallest in the United States. To her stock of half a score of Shetlands, Mrs. Dr. Lord has added three by recent importation, which are marvels of equine symmetry, strength and endurance, their extreme diminutiveness considered. This trio of little horses consists of a span of blacks, well mated, and 34 inches high, and a mouse colored poney 33 inches high. From a genuine lover of equine curiosities, we learn that Mrs. Lord sent Mr. William Simpson, a Scotchman, resident at Black Rock, to Scotland, in March last, for the sole purpose of obtaining two spans of Shetlands, of certain dimensions. The fairs at Glasgow, Edinburgh, Aberdeen and other places were visited, but it was only after a long and arduous search that the span of blacks could be found. The little mouse-colored fellow was found in an unfrequented place on the Shetland Islands, where he had been accustomed to feed on fish secured by himself from the water. A fourth was found in another remote corner of the Islands, but unfortunately died on the passage hither. The ponies were brought to this country in charge of Mr. Simpson, on a sail vessel : and after a voyage of between 40 and 50 days, most of which time the animals swung between decks, they reached terra firma in good condition. By the death of one of the quartette, the cost of the three ponies of which we write, does not fall short of \$1200. Mrs. Dr. Lord has displayed decided enterprise, and we are pleased to note her success in the matter of procuring the three smallest Shetland ponies to be found in this country.—*Buffalo Courier.*

### Concreting for Building Purposes.

Our friend "W." in his article of August 3d, does not over estimate the cheapness and utility of this new method of building. But it is necessary to obtain some practical knowledge of the materials and method of putting them together. If W. has plenty of sandstone, he has just the right material to put up any house of any capacity. Let me say for the benefit of all concerned, that where such stone as this abounds, you have only to lay your foundation with substantial stone, or if such are not at hand, dig your trench for the wall, and mix sand, gravel and water lime together, throw in all sorts of stone with enough of the mixture to make all solid. When filled up to level with the surface, attach boards to each side of the wall, and raise the whole 18 inches, by filling up with the like material, crowding in all the stone it will receive. Now you are ready to proceed with the structure, having a foundation that will stand the wet and frost. Stone lime may now be used in place of the water lime, it answering just as good purpose on dry work. But you can proceed with the wall no faster than it will dry; ordinarily about two or three feet per day, with cobble stone. With sand stone, however, you may pack in the stone and mortar, layer upon layer, as fast as you please. Such stone could be laid to line and plastered on the outside, like the building for the insane, at Hartford, Ct. If the stones are in all shapes and sizes, I should prefer the boards, as being the most expeditious and convenient. As a guide to the structure, have some scantling raised on the corners, plumbed and fastened with cleets nailed on each side for the outside boards to slide up in and hold them in place. Put strips across the wall for boards to rest on when raised, with some to correspond on top, and run pins down through both on outer side.

Fine sand, or that which is mixed with earth, will not harden. The coarser the material, the harder and better for the wall, or the rough coating on the sides. In West Jersey the people dig up the gravel and mix it with water lime, so as to make a good mortar, which is cast in blocks of any required size.

I am about to build a house for a man in Massachusetts, which I shall raise to first floor with stone and mortar packed in boards, as already described. For the remaining stories I shall mix a bed of stone lime and gravel mortar. I shall mix with this as fast as used, a half barrel of water lime to one of stone lime. This mixture to be cast into blocks, with any amount of cobble stone that can be crowded into the boxes.

The object in using the water lime is to facilitate the hardening process, so as to hasten the work. The corner blocks will project alternately four inches on each side, to give increased beauty and effect. The whole will be rough coated and penciled in imitation of free stone, giving an exterior finish which will not suffer in comparison with many a city mansion.

I claim for this mode of building, great durability and cheapness. No oil paint is required on the walls. Rats can find no lodgment. Vines may be trained over the surface either for fruit or ornament. Farm hands can perform most of the work. It is cool in summer and warm in winter. Let the roof project 18 inches,

and do not suffer the water to spatter against the base and freeze.

I hope I have given points of information sufficient to enable the people every where to construct their own houses from material at hand. Where the blocks are cast, the work is done quickly. The long, tedious, and expensive job of carpenters, joiners, and painters, is avoided. Farmers can adorn their grounds with neat and substantial out-buildings, and the poor need not be houseless.

Use good material, well mixed and properly put together, and you need not fail. A. L. L. Granby, Conn.

### COTSWOLD SHEEP.

The late test of the Wool Growers' Association, as to the comparative loss of different wools by thorough cleansing, will have its good effect on the public. The Merino Wool Growers have, through the Agricultural press, by their reports of enormous fleeces in the grease, made the impression on the public that the fine wool families were as much superior to the English Combing wool breeds, in the *quantity* of wool they produced, as in the *quality*. This test puts all such assertions in their proper light before the Wool Growers of this country, and the introduction of new machinery, and new forms of fabrics, for want of cotton supply, has enhanced the value of all combing wools in England and America, and has placed their commercial value nearly equal, pound for pound, with the ordinary felting or fine wools. The latter fact, in connection with the late test, must have a great tendency to increase the flocks of Cotswold and other combing wool breeds in America, in all proper situations, viz., where the pasturage is rich and the soil strong, and population most dense, and butcher's meat in most demand. Let the Merinos be consigned to cheap and thin soils and grasses, and to remote localities far away from the great centres of trade and population, where no demand exists for butcher's meat; there let them live and increase during their natural lives, producing wool alone, and they will be found in their appropriate and most profitable sphere.

The Cotswold is a highly improved animal, having to perfection all the high feeding qualities of the best short horn cattle, and will make from a given amount of rich food as much return in butcher's meat as any other animal of any species, and of more value per pound in the city markets when made, than the first class beef. They thrive only in small flocks and with high handling, rich food and plenty of it. With the sheep family they occupy the same class that the short horn does with cattle, that is the very best and cheapest machine the farmer can employ to manufacture his grain and grass into meat and manure. The percentage of wool produced in the late test *relatively* to the weight of carcass is not a *fair one* so far as this particular breed is concerned. *It does it more than justice.* The specimen selected is the lightest carcassed yearling I have ever known, whilst its fleece is fully up to the average of yearlings. As a breeder of Cotswold sheep, I have never owned a yearling purely bred and well kept, that did not exceed the weight of this specimen from 25 to 60 per cent., and many yearlings might have been found weighing 160 lbs. and producing *no more wool*. I have weighed buck lambs



from the teat, yeaned in March, in the following August, drawing 140 lbs. live weight. The heaviest fleece ever produced by this breed is at yearlings, if well kept. ANTHONY KILLGORE. *Stewartsville, Mo.*

#### THE GREAT THISTLE DESTROYER.

That greatest of curses with which the farmer has to contend, the Canada thistle, has at last found a deadly enemy in the shape of a black worm,  $1\frac{1}{2}$  inches in length, and resembling in size the common apple-tree caterpillar, except that it is arrayed with a large number of horns or shields along its back and sides, while the caterpillars are covered with hair or down. These horns are so hard that you may press on them from the outer end until they pierce its body, without bending or breaking them in the least. Thus it would seem that nature has provided them with an armament resembling the plant which it destroys. This worm feeds upon nothing but Canada thistles and large briars, (vulgarly called bull thistles,) on which it feeds with avidity, eating night and day. I have seen twenty of these worms on a thistle not more than a foot in height, all using their masticators in real worm style. They completely strip the thistle from every sign of a leaf, leaving nothing but the stalk and larger branches. They made their appearance in this town but a few weeks since, and judging by worms of a like character, I think that this worm will increase in such quantities that within a very few years this greatest of pests will be exterminated from the soil. Success to this worm.

*Barrington, N. Y.*

L. D. SNOOK.

#### IRON PIPE FOR CONVEYING WATER.

In compliance with the wish of a correspondent in the Co. GENT., for Aug. 24, I send my experience with iron gas pipe for leading water:

About ten years ago I laid 130 rods of one-half inch iron pipe, leading from a large spring of very pure soft water. With the exception of four or five rods the surface is level; the soil is a dry gravel or loam.

In less than two years the pipe filled with sediment and oxide, so that it became necessary to relay and clean nearly all of it. I then placed wooden blocks or tubes at intervals of about 20 rods, and when it became necessary to clean the pipe, which was about once in two years, I did so by inserting an iron tube perpendicularly in the wooden tube, and then by a swab or plunger force the water and sediment out of a similar orifice in the next wooden tube. In this manner the pipe was cleaned for the first six years. It then commenced leaking, and upon examination, the water acting upon the iron had caused scales or blisters to nearly fill the bore, which, catching the sediment and oxide, prevented the cleaning by the usual process. Similar blisters were produced by the soil on the outside of the pipe, which in many cases extended through it, allowing the water to escape. Some of the pieces had to be removed, others were repaired by the use of tinner's solder, the iron first having been filed bright, and covered with a solution of muriate of zinc. By thus continually repairing, it has been used to the present time, and now the water scarcely drops, having not been disturbed for nearly 18 months. It must be relaid this fall. For a few

rods through blue clay the water is lead by pine logs, which have been in use about thirty years, and are now sound.

From my experience I have come to the following conclusions: 1st. That iron gas pipe is not available or economical in leading pure soft water, a long distance, owing to the liability of the pipe to fill with blisters of oxide and sediment. 2d. That wooden blocks or tubes should be inserted at intervals of not more than ten or fifteen rods to facilitate cleaning the pipe. 3d. That the pipe used should not be less than one inch bore. 4th. That pine logs form the best tubing for blue clay.

As the tubing to my water must be relaid this fall, will some of your correspondents inform me—1st. Whether iron pipe is thus affected by *hard water*. 2d. Whether coated or galvanized iron pipe is liable to oxidation. 3d. The number of years it will remain in such service available. 4th. Whether tiling of 1 or  $1\frac{1}{2}$  inch bore, similar to that used for pumps, can be procured, and at what cost per rod. 5th. Whether it will bear the strain of raising water twenty feet.

*Rockdale, Chen. Co., N. Y.*

S. A. F.

#### How to Cook the Egg Plant.

An "OLD HOUSEKEEPER" sends a West India receipt for cooking egg plant: Take the skin from the egg plant, cut it in slices of about a quarter of an inch thick, *round the egg*. Begin with the first cut slice—*shake* on some black pepper and a large saltspoon of salt—add the same to each piece, and place them on top of each other. If a large egg, make two piles. Put them in a deep plate, and cover with another plate, on which place a flat iron, or any weight. Let them stand two or more hours. Put a piece of butter in a frying pan, and when hot lay in the slices of egg plant, and turn them to be brown on each side. Serve hot.

#### ELDERBERRY WINE.

A correspondent asks for a recipe to make Elderberry Wine. We have used the following with good success. The berries should be gathered when perfectly dry, and if one is very particular in regard to flavor, the berries separated from the stems, mash fine, then add two gallons boiling water to one of pumace, and let it stand until it begins to ferment. After pressing out the juice, add three pounds sugar to each gallon; put into clean casks, jugs, or demijohns, fill them full, and keep them full as it tends to fermentation; then cork up airtight, or bottle off. It will be fit for use in four to six months, but will improve with age. If the quantity to be made is small, it may be pressed in a coarse strainer, or a piece of coarse cotton or flannel, or, what is better, a strong cask with holes thickly bored through it, and put under a hand cider-mill or cheese-press.

*Holden, Mass.*

C. W. G.

#### Turnips and Grass in Connecticut.

It is a general practice about this section to cut the grass before the 25th of July, turn over the sward smoothly, spread on twelve to sixteen loads of fine manure, harrow the whole to a level, sow grass and turnip seed, and bush it in. In this way two good crops are obtained in one season. Two and three hundred bushels of turnips are obtained to the acre with very slight cost. This is practiced by some of our best farmers. We regard it as far more profitable than the mode of cultivation recommended by some of your correspondents. A. L. L. *Granby, Conn.*

## NEW-YORK STATE FAIR.

The farmers of the State again met last week, for the twenty-fifth time since the re-organization of the Society, a quarter of a century ago, to attend its Annual Exhibition of the stock and products of New-York. A long drouth had just been followed by welcome rains, and Tuesday of the Fair week opened at Utica with a bright prospect for clear skies and a crowd. But Wednesday morning the first sounds were from the pattering drops of a heavy shower, renewed at intervals until 9 or 10 o'clock, when the clouds broke away and the sun shone out with July vehemence. The next day was very warm, and though bright overhead, there were constant fears of inconstant luck—fears fully realized by the tremendous thunder storm of the afternoon, sadly interfering with the coming and going of visitors. Friday was pleasant, but the interest of the week had gone, and sheds and stalls and tents were rapidly vacated or dismantled. The receipts of Thursday for admissions were something over \$6,000, and the total from all resources \$11,767.00—being nearly \$400 larger than at the same place in 1863—a difference in a great extent due to the number of Life Memberships procured by the exertions of Mayor BUTTERFIELD and others interested in the prosperity and success of the Society.

The grounds were the same as those occupied in 1863, with some improvements and additions to the structures. The character of the exhibition as a whole was good—in some departments much less full and excellent than it might and *should* have been, but even in these not more sparse than has occasionally been the case before—while in others it was unusually rich and varied. Everything passed off pleasantly by day, and the evening meetings for discussion were well attended and otherwise fully maintained their former interest. Many of the Society's oldest friends and former officers were present, with numerous guests from abroad.

Following the order of the Premium List, with the first, CATTLE, we take up one of the weak points of the Exhibition. The display of *Short-Horns* was, in mere numbers, far from a fair representation of the herds of the State, and while in quality worthy of high praise, the lack of competition on the part of many leading breeders was an occasion of general regret. The same remarks apply, in still stronger force as regards sparsity, to the *Devons*. The *Herefords* of the State have seemed for some years to be comprised in a single herd, and it is well that this should continue to put in its annual appearance to remind us of the existence of the breed. The *Ayrshires* were a very pretty although limited show, and of the *Alderneys* little else can be said. *Grades* were numerous and good, and the turn-out of *Working Oxen* was one of the best points in this department. The *Fat Cattle* included nothing worthy of special remark.

The show of HORSES was much larger and better than that of Cattle, and would compare favorably in extent and quality with those of previous years. The splendid draft horses of the American Express Company added much to the display. Among SHEEP, the Long Wools were the weakest, by no means representing the extent to which the breeding of these sheep is now carried on in the State; the Middle

Wools were good, but not in large numbers. The display of Merinos was large and excellent, including a number of exhibitors from Vermont, although we notice that New-York flocks appear to no disadvantage thereby in the Premium List. Among SWINE the large breeds were in unusually strong force.

The display of IMPLEMENTS has been seldom, if ever, excelled in this country. In this, as well as other departments, we present elsewhere more detailed reports, but cannot do otherwise here than commend the spirit thus shown by our manufacturers, and express the hope that they may continue to increase in the enterprise now manifested until our Show grounds really represent in a creditable way the improvements of American inventors and the workmanship of American mechanics. Even the full and excellent collections exhibited at Utica are thrown entirely into the shade by those which crowd the buildings at English Shows—a fact of which we are forcibly reminded by a catalogue now before us of the recent Royal Society's Show at Plymouth, in which the entries of implements reach the enormous number of 4,023.

Of the extensive display in the DAIRY department a full account will be found on another page, to which it need only be added here that the cheese shown was said to have been sold in one lot to C. D. FAULKNER, of the firm of JONES & Co. of Utica, at 17 cents per pound, to be handled by BUDLONG & STOKES and shipped to England.

The FLORAL TENT was neatly decorated and arranged, and in view of its being an unfavorable season for fruit, and too early for an extended show of grapes, the display was a creditable one. For details in this department we must refer to the List of prize awards, to be published hereafter.

— Among the points of special interest which the present year's exhibition may be thought to have decided, one is undoubtedly the entire feasibility and practical value of the new classification of Merino Sheep. So far as we were able to ascertain it was received by breeders with entire satisfaction and if permanently continued, cannot but prove of essential service in the development of this most important interest.

The address was delivered on Thursday afternoon by Hon. G. W. SCHOFIELD of Pennsylvania, and was devoted mainly to the subject of Agricultural Education. Among the pleasant incidents of the week was a supper given at Bagg's Hotel, on Thursday evening by the city authorities to the officers of the Society and other invited guests.

Sentiments were proposed complimentary to the city of Utica, to the eminent gentlemen present, and to the State Agricultural Society. The responses were brief. Gov. Fenton responded pithily and appositely; Postmaster-General Dennison with elegance and admirable taste; Mayor Butterfield, sensibly and vigorously; Ex-Gov. Seymour and Hon. G. W. Schofield, humorously and well; Senator Cornell after the model of Gen. Grant. Hon. T. C. Peters, President of the Society, presided.

♦♦♦♦♦  
**Early Grapes.**—The Hartford Courant, Aug. 10th, acknowledges from Mr. V. W. Whiting of Linden Place, bunches of ripe Hartford Prolific grapes, grown in the open air.



## NEW-YORK STATE FAIR---1865.

[REPORTED FOR THE COUNTRY GENTLEMAN.]

**Cattle.**

Among the Short-Horns exhibited, Hon. EZRA CORNELL of Ithaca presented several cows and heifers and one bull, in fine show condition, and adding much to the interest of this department. Among them we were pleased to see 3d Lord of Oxford, bred by Thorne, and recently sold by Mr. Cornell to an English purchaser, Mr. Harvey. This bull shows great improvement in appearance since the Fair at Rochester, last year, and while Mr. Harvey is to be congratulated on his acquisition, it must still be regretted that this country will lose the services of so good an animal. Among the females exhibited by Mr. Cornell, imported Fidget attracted much attention. Better still, and of great promise for the future, were Lucilla, two years old, who has already taken home the blue ribbon, and Lucretia, a very fine ripe yearling, plain in color, red and white, but remarkably well developed in all the strong points of a Short-Horn. Messrs. WOLCOTT & CAMPBELL, New-York Mills, exhibited four Short-Horns—the bull Weehawken 2d, bred by James O. Sheldon, by Oxford Lad, dam Vara, &c., showing much of the neatness of head and substance of his sire; a young cow, Belmont, looking very much like Miss Bellville, the dam of Belmont, having the same neat head, horns, neck and fore-end generally; also a fine yearling by Iron Duke, and a good bull calf by the last named bull. The Thorndale herd was represented by a capital young son of 2d Grand Duke, Royal Guardsman, and we are sorry to say that here the show of Short Horns from Thorndale ended. A. M. Ritter showed a very large red bull of many fine points, and showy in general appearance.

E. Corning, Albany, showed several Herefords, all looking well, and good specimens of this well-known breed.

WOLCOTT & CAMPBELL exhibited nine Ayrshires selected from their excellent herd, and of course good animals, including Baldy, 3 years old, recently imported—as an Ayrshire rarely equalled, and in some points, having no superior on the ground of any breed; Tarbolton, 2 years, imported with the above, very neat, with the extremely fine heifer looking head and horns so much in fashion among the best breeders of Scotland; also Patie, an eleven months bull calf, and those who remember his grand sire, Kilburn, shown about 8 years ago, would at once recognize his breeding.

**Sheep.**

There were but few Cotswolds and Leicesters shown. The principal exhibitors of the former were Mr. Sayre of Oaks Corners, Ontario county, and Mr. Gazley of Dutchess. In discussing the question of wool with the latter gentleman he mentioned that his Cotswold flock has for several years averaged well washed fleeces of eight pounds per head, and in the clip of 1865 the average was 10 lbs. It will be remembered that he had a ram at Canandaigua shorn on the trial for cleansed fleeces. He said that if he had known of this prize previously to going to the show, he could doubtless have made selections from his flock that would overtop completely the Merinos in proportion to weight of body. His flock has averaged him, as to fecundity, three pair of twins in five, or eight lambs to five ewes. The breeding ewes average 200 lbs. live weight, and he has often got his yearlings up to the

same figure. He exhibited five yearlings, five ewes and three ewe lambs, and found a large demand from purchasers. Among several sold by him on the grounds, were rams to Wm. Dunlop of Ovid, and Alex. Scott of Amsterdam.

South Downs were not out in very strong numbers, but the breed was well represented by contributions from the noted flocks of Saml. Thorne, Dutchess Co., R. H. Avery, Madison, George H. Brown and Elihu Griffin, Dutchess, and P. Lorillard, Westchester. A few were also shown by John Butterfield, Utica. The breeders of South Downs proved that their reputation is well supported by their success, and in case of two of Mr. Thorne's entries, the yearling ram No. 16 and the pen of yearling ewes, he perhaps surpassed anything of the same kind ever shown at our Fairs. Mr. Lorillard also exhibited excellent Shropshires, but his sheep we regret to say were open to the charge of stubble shearing, and some of his premiums were suspended when this fact was brought to the notice of the Board.

Merinos were out in great strength. Mr. CHAMBERLAIN had in charge of CARL, 64 of his choice Silesians, which seem to us to be increasing in size and beauty. New-York Merinos were well represented by Bennett & Beecher, Livonia, H. M. Boardman, Rushville, and E. Townsend of Genesee Co.,—the last named gentleman with a pen of extra lambs recently purchased from the well known breeder, F. H. Dean, West Cornwall, Vt. Good pens were also shown by Judge Pettibone and W. H. De Long of Vermont—the latter with his stock ram Gen. Grant. E. N. Wheeler, Middlebury, Vt., had a yearling, a good specimen of Gold Drop's get, and a number of excellent rams and ewes. L. J. Burgess, North Hoosic, exhibited three ewe lambs and same number of ram lambs of the Hammond stock, spoken of as well worthy of their pedigree. A. J. Jones and J. Hill were other leading exhibitors. D. W. Percey, North Hoosic, had a few superior ewes both of the Hammond and Rich strains, and his first prize ram at the Fair in 1864, from a Rich ewe by a Hammond ram, attracted special notice. M. G. Rapalee, Milo, Yates Co., showed a very large and showy ram by Sweepstakes.

**Swine.**

The show in the large breeds of Swine was exceedingly fine—including among exhibitors, P. HUFFSTATER, Watertown, Jefferson Co., 20; A. C. CLARK of Henderson, 20; G. C. PALMER, 8; H. D. JACOBS, Adams, Jefferson County, 8; JOHN BUTTERFIELD, 2; BRODIE & CONVERSE of Jefferson county, 7; and a number from the State Lunatic Asylum, exhibited by WM. PITHAM.

**Horses.**

The show of matched and single horses was large and splendid. Stallions of all work were exceedingly fine, and the competition in this class must have been close. EDWIN THORNE of Orange county, showed Hamlet, 6 years old, sired by Volunteer, and he by RYSDYK's Hambletonian, of Orange county, and which took the first premium on horses of all work. He is a rich blood bay, stands 15½, fine style, clean, thoroughbred head ear and neck, and has been driven by HIRAM WOODRUFF in 2:34. He is a horse well calculated to produce first-class carriage horses, and the sum of \$10,000 has been refused for him. CHESTER WOLCOTT's Pathfinder, from Trenton, Oneida county, a splendid black, sixteen hands high, took the second premium in this class. Mr. W. also exhibited Royal George, by old Royal George of Buffalo, a three years old, fifteen hands and three inches high, dapple brown, a beautiful and graceful animal, and promising to be very fleet.

The two years old and three years old colts, of all work, and the Black Hawks, made an exceedingly fine show. There were quite a number of Oneida county horses on exhibition. George Douglas, of Tren-

ton, had a fine span of Black Hawks; L. R. Powell, of Holland Patent, a large and fine pair of four years old, 16 hands; W. Tanner, of Holland Patent, showed two single horses, one five and the other three years old, a bay and gray, nice animals, and the latter taking the first premium. For further details we must refer to the list of Premiums.

#### Dairy Apparatus

The show of dairy apparatus was one of the best ever had at our State Fairs. Among the prominent exhibitors were W. Ralph & Co., Utica, who had eight of their celebrated factory vats, large size and with its present improvements one of the best of the many improved apparatuses for making cheese. They exhibited two styles of hoop—one galvanized iron and one of wood; six carrying milk cans; two weigh cans, ten cheese screws and syphons for drawing off whey. These last are very ingeniously contrived, and handy implements in cheese manufacture. O'Neil & Co., Utica, also had a large exhibition of dairy apparatus, three factory vats and three dairy vats and heaters. They showed 16 delivery cans, nicely got up, holding from 15 to 36 gallons; 46 cheese hoops, those made of cherry very smooth and handsome. Also 28 press screws; nine agitators; two cheese presses; 8 curd knives, two curd scups, and Jones's floating thermometers. They also have a new curd cutter, H. Keenay's patent, which is to be attached to the vat and devalves, passing from one end of the vat to the other by means of a cog wheel. It looks if it might be a very good implement. H. & E. F. Cooper, of Watertown, have also a fine display of their well-known dairy vats, with Maplers' improvement, now in general use in Jefferson county. In this connection we must not pass over the beautiful samples of bandage exhibited in dairy hall, by Jonathan Jones & Co., Utica, spoken of by experienced judges as the best in use.

#### Implements and Machinery.

One of the marked features of the Fair was the splendid exhibition of machinery, especially that in the field, which covered a large space, and occupied the whole central portion of the Fair grounds. The design or arrangement was a very happy conceit, and is due, we believe, to General Superintendent HAROLD and Mr. Wood, the Superintendent of this department. This was, that all the farm implements and machines were arranged together, according to the season in which they were to be used.

To give a proper idea of this magnificent show of ingenuity and mechanical skill, a bird's eye view of the grounds will not be out of place.

The grounds were laid out in avenues at right angles, three broad avenues running east and west, and three north and south, crossing each other at right angles. In the center of the grounds, upon the four corners, made by the two central avenues, stands the President's office. Commencing at the foot of the South Avenue, running east and west, we find on the right, as we pass up, the spacious Dining Hall of the Society. Next is the Dairy Hall and Mechanics' Hall. On the left of this avenue, between South and Central Avenue, is a large space devoted to implements and machinery arranged in lines, and avenues between them. The front line is composed of plows, cultivators, and different machines for putting in crops. The next line is composed of drills, horse rakes, feed cutters, grain drills and broad cast sowers, hoes, pitchforks and all machines for putting in and working crops. The next line is composed of hay tedders, fanning mills, potato diggers, gang plows, wheat cultivators, and various machines for harvesting and handling crops. On the north of the Central Avenue, arranged in two lines, are threshing machines, &c., of the REMINGTONS of Ilion, and of WHEELER & MELICK of Albany. The next line are HORACE L. EMERY of Albany; R. & M. HARDER, Cobleskill; FOWLER of Fowlerville, N. Y., each exhibiting a large variety of implements and general assortment of machines, from

their establishments. On the south of East Avenue, and running at the head of the avenues east and west, are arranged reapers and mowers in two lines, making a splendid display. On the right of the center avenue, running east and west, stand the hay presses—seven in number—and making one of the interesting features of the exhibition. LADUE & STORY of Little Falls, have two of the celebrated Beater presses, one a screw and the other a lever beater press. COLTON, WASTE & BRO., of Galesburg, Ill., come next with their roller presses. Dederick's independent lever press, manufactured at Albany, N. Y., comes next in line, and Mr. DEDEKICK has two others also on exhibition. The American Hay & Cotton Press Company, GROVES' patent, stands near, all of which have been at work from day to day, turning out bales of hay, and some of them with great expedition. The Beater press was in motion nearly the whole of the time, and performed its work with great neatness and dispatch.

One noticeable feature in all of the machines upon the grounds was their fine workmanship and substantial manner of construction. Great improvements have been made in this direction, and it is a feature worthy of note, indicating progress. At former fairs we have had a large number of slightly made machines, and manufacturers are now becoming aware that durability is a matter of some importance.

In Reapers and Mowers there has perhaps been more improvement made during the last year than ever before in twice that space of time. In this large collection the farmer could scarcely go amiss in taking any on the ground. In Plows, Cultivators, Harrows, Horse Rakes of various kinds and styles, both wheel and revolving, the collection was large, embracing many new features. And even in the common hand-hoe we find an important improvement in the sample exhibited by Mr. NOURSE of Boston, which consists in lengthening the blade, rounding off the corners, and tapering the blade to a point, thus lessening the labor of hoeing or digging roots.

In horse powers and threshers, the exhibition was larger than last year, and embraced several new features, and for mechanical skill and workmanship, has never been excelled. Among the many machines of this character, perhaps the most attractive, is a new invention by N. Palmer, of Hudson, N. Y., called the climax threshing machine, which preserves the straw perfectly. It is constructed with a feeding cylinder five and a half feet long, which carries the straw into the threshing cylinder. This last is corrugated, having twelve flanges and corrugations. The grain is fed in lengthwise of the cylinder and the straw comes out entirely unbroken and uncrimped. It must thresh fast and with little power on account of having nearly twice the space for receiving the grain as other machines and on account of not breaking or meshing the straw. It is a side or cross feed machine, taking the straw to the binder as straight as before passing through the machine. It performs its work in a most wonderful and perfect manner, and elicited the admiration of all those who saw it work. It was awarded the Silver Medal and a Diploma, and richly deserved them. It was exhibited by N. & T. G. Palmer of Hudson, Columbia county, N. Y. We may allude hereafter, to other new and important improvements in machinery or those that would be of general interest to the public.

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**Cotton in Southern Illinois.**—A correspondent of the Tribune says, that in fourteen of the southern counties of Illinois, and in a few in Indiana, cotton is everywhere seen. Tens of thousands of refugees find constant employment. Capitalists from the North have large fields; every farmer planted; the amount is enormous. So far it looks well, and much better than for several years. The wet weather has caused a great growth; when the rain stops the bolls will begin to open.



## THE NEW-YORK STATE FAIR.

## The Great Cheese Exhibition.

One of the leading and most interesting features of the Fair is Dairy Hall. Never before, in any age or country, has there been such a splendid exhibition of cheese. It is true the number falls short of what was expected, but the show in this department is large, and embraces all, or nearly all, the first-class factories in the State. Factories which are not represented, it is to be presumed, had no cheese on hand which they were willing to run the risk of showing. Perhaps it is fortunate that no more cheese is on the grounds, since the tent is quite full enough for showing them to advantage. An ordinary observer going through the Hall, would perhaps be merely attracted by the handsome appearance of the various lots on exhibition, but when it is taken into account that we have here the choicest product of American dairies—cheese that for richness and flavor have never been surpassed or perhaps equalled in America, then it will be seen how important is this exhibition to those desiring to see the best that our dairymen are able to accomplish. To the dairymen these cheese on exhibition are of interest, since the various dairies may be compared side by side, and lessons of improvement learned. Here are coarse curds, the Cheddar and other styles of cheese which have more or less favor in the several markets for which they are designed.

The cheeses are arranged in the tent by counties. As you enter, the first that strikes the eye is the big cheese of Canada, manufactured by SMITH & SONS, at Norwich, Oxford county, Canada West. It weighs 4,240 pounds, and took the milk of 500 cows for four days for its production. It stands upon the wagon specially arranged for it, and is in the central part of the tent. It is 16 feet in circumference, five feet in diameter, and two feet four inches high, and was hauled upon the grounds, yesterday, at 2 o'clock P. M., by 10 yoke of oxen, the American and British flags flying from its top. It is the largest cheese that has ever been manufactured, and as such must necessarily attract attention and interest. There is but a small representation from family dairies—some forty cheese from Erie and Wyoming counties, and one from the central counties. The factory cheeses are arranged by counties—Herkimer and Oneida being in the center, the eastern counties being on the right and the western counties to the left.

As to numbers, Herkimer county takes the lead, showing 100. Oneida comes next with 98, then follows Erie with 60; Jefferson 41; Wyoming 40; Lewis 30; Otsego 18; Madison 9; Oswego 7; St. Lawrence 6, and Onondaga 6—making a total of 516.

We may remark here that Superintendent GEO. A. MOORE of Buffalo, is deserving of much credit in getting a show of cheese from Erie and Wyoming counties. These distant counties are well represented, and that it has been so is mainly through the exertions of Mr. MOORE, who was determined to see that part of the State properly represented.

About 6 o'clock last evening, and while the people were leaving the fair ground, several shippers and cheese dealers being present, with Mr. CLARK of the Canada Farmer, and a few others, it was proposed by Mr. SMITH and NELLIS of Canada, that the big cheese

be tested. Superintendent MOORE provided a long butter trier and placed it in the hands of the shipper, Mr. HODSSON, who lifted the bandage and pushed the long steel into the heart of the great "Queen of Milk." The cheese shows no porosity, and is well manufactured. It is not deficient in butter, but the flavor is inferior—much inferior to our State cheese.

While nearly every cheese on exhibition is of special merit, it would perhaps be invidious to make distinctions, but there was one sample that perhaps should be noticed on account of the peculiar manner in which it is put up. We refer to the samples from Lyman R. Lyon's factory, Lyons Falls, Lewis county. These cheeses are a nice imitation of the celebrated "improved Cheddar" of England, Mr. L. having imported a sample to work from. They are 15 inches in diameter, by 11 inches high, and never had upon their sides a bandage. The dairy public will perhaps remember that Mr. Pritcher of Jefferson Co., last year made an experiment in substituting hoops for bandages, and he stated at the Watertown Cheese Convention that they proved a success. Dairymen generally have been incredulous in regard to this matter, and have been unwilling to try it on account of the fear of losing cheese during the process of curing and shipping to market. Mr. Lyon, however, has been trying the plan, and finds it to work as successfully as had been represented. We visited his factory recently, and saw his cheese, and tested them. They are nice in appearance, free from mould, and are of good flavor.

The mode of operation is as follows: As soon as the cheese comes from the press, an elm hoop, similar to that used for putting up cheese when sent to market, is divested of its covers and slipped over the cheese, and remains there until it is ready for shipping, when the hoop is cut down level with the cheese and the covers adjusted, and it is all ready to go off, like any other cheese. These hoops are planed on the inside, and at one edge are  $1\frac{1}{4}$  inches larger in circumference, in order that the cheese may be taken out when curing, whenever desired.

This comprises the whole matter, and those who examined Mr. Lyon's cheese at the Fair, will see that they are in as perfect a shape and condition as any that have bandages. The importance of adopting this method will be more readily appreciated when it is known that all bandaged cheese, when it arrives in England, is stripped of its bandage, and one pound deducted on each cheese for bandage. This, together with the large cost of bandages, and the trouble of putting them on, would seem to specially commend the practice to dairymen. X. A. W.

## HOW TO MAKE ELDERBERRY WINE.

MESSRS. EDITORS—In your CO. GENT. of Aug. 10, I see an inquiry for a recipe for elderberry wine. I send you mine, which I think a very good one:

Mash your berries and strain them through a cloth. To one quart of juice add three pounds of sugar and two quarts of water. Put in a keg not quite full, cork tight, and let it stand in a cool place for at least six months before using—the longer the better.

North Greenbush, N. Y.

T. M. SUTLIFE.

A man will have no fine springs in his body if he seldom or never drinks at one.

## ENTOMOLOGICAL CORRESPONDENCE.

A severe attack of sickness the past month, disabled me from punctually responding to some inquiries respecting insects, addressed to the Co. GENT.

**Yellow-necked Apple-tree Worm.**

S. CAVERNO, writing from Lockport, N. Y., August 7th, says:

I send you enclosed, specimens of a worm which I first noticed upon my apple trees two years ago. At that time they were confined to a few young trees. I destroyed them. Last year twenty or thirty trees were attacked. I again, carefully destroyed them. This year they are making their appearance on hundreds of my young trees. They commence at the top of the branches, work in close proximity, covering each leaf with as many as can get upon it, others taking and covering the nearest leaves, thus working in companies of ten to a hundred on the same limb, and close together. They make no nest. I have not been able to discover whence they came nor whither they go. They commence about the first of August; how long they continue their depredations I cannot tell. In some cases last year they had stripped every leaf from some trees and disappeared, before I noticed the fact. The smaller ones have black heads with yellow spots on the back. As they become larger the body becomes darker, and the head and those spots become a bright red or scarlet. When fully grown these spots become very bright and much larger. Their excrementitious deposits literally blacken the ground. The full grown worm is several times larger than the largest of these specimens. They multiply so rapidly and devour so ravenously, that I fear they are destined to become a serious evil.

The worms sent with the above were the Yellow-necked Apple-tree Worm. It is a cylindrical dull yellow worm, with light yellow stripes, which are more or less broken into spots, and a shining black head. It is thinly clothed with long soft gray hairs. As it approaches maturity it changes to a dark brown or black color, with the same light yellow stripes, and the neck now becomes bright orange yellow or red. These worms make their appearance each year in August. They occur crowded closely together in a cluster, upon a particular limb of the apple tree, which they strip clean of its leaves; and if the limb is gently jarred or otherwise disturbed, they all instantly hold both ends of their bodies stiffly upward, remaining perfectly still in this grotesque posture for some moments, until their alarm subsides.

These worms are produced by a miller or moth which is from two to nearly two and a half inches in width across its wings, when they are fully extended. Its color varies in different individuals from buff yellow to auburn brown, and it is particularly distinguished by having four slender blackish-brown bands across its fore wings, the first band being curved and transverse, the others straight and parallel with the hind margin. I gave a full account of this insect, with figures of the worm and of the parent moth, in my Second Report on Noxious Insects, in the Transactions of our State Agricultural Society for 1855, page 467, to which I would refer the reader for more particular information.

This insect was first made known to the world in 1773, by Dru Drury, in the second volume of his Illustrations of Exotic Entomology, plate 14, he naming it *Phalena ministra*, or the Hand-maid Moth. Dr. Harris refers it to the modern genus *Pygarea*. But perceiving it could not be properly included in that genus, when preparing the account above referred to, I proposed for it a new genus, to be named *Eumetopona*. I since see Mr. Walker, in the Catalogue of the British Museum, has placed it in a new genus, which he names *Datana*.

This insect appears by Mr. Caverno's letter to be unusually abundant this season in his vicinity. Com-

monly but two or three clusters of the worms are to be found in an orchard, and several years frequently elapse without any of them being seen. As they are huddled closely together in such numbers on a particular limb, they are readily destroyed by cutting off the limbs on which they are gathered, and dropping them into a stove in which a fire is briskly burning.

**Locust Hispa.**

W. J. YOUNGS, in a letter from Oyster Bay, Long Island, Aug. 21, says:

"I send you with this a few bugs or beetles that are making sad work with our locust trees. It is the first time they ever appeared in this place, though I have seen them in the western part of this county for several years. If you have locust trees in Albany I advise you not to let them go; if there are none, then no matter for they attack no other trees. A person can almost count every locust tree about here, each tree looking as if it had been subjected to a fire. The little fellows appear to do no further damage however, than eat the leaves off the trees. There are millions of the bugs about here."

We have repeatedly received accounts from different sources of this little beetle, as being very pernicious to the locust trees in this State and Pennsylvania, and have already noticed it in the COUNTRY GENTLEMAN, January, 1860. It has been particularly destructive at Glen Cove, ten miles west of Oyster Bay, where it commenced its career several years since, and has been gradually extending the field of its operations, the line to which it had advanced each season being plainly marked by the brown, withered foliage of the trees, appearing as though they had been singed by fire. Although this insect is so immensely numerous in the southern, I am not aware that a specimen of it has ever been found in the middle and northern sections of the State, which is the more remarkable as locust trees are here so very common.

This insect is the Locust Hispa, its technical name being *Anoplitis scutellaris*, Olivier having first named and described it. It is a small oblong flattish beetle, of a black color with the thorax and wing covers, except along their suture, tawny yellow. It is a quarter of an inch long. Its larva also feeds upon the leaves, residing in their interior and consuming the green pulpy matter of the leaf, but leaving the skin entire. A gray spot resembling a blister may be noticed on many of the leaves, and on opening this spot a small flattened whitish worm is found there, tapering from the fore end to the tip, with projections along each side like the teeth of a saw, and with but three pairs of feet, which are placed anteriorly upon the breast. It grows to a quarter of an inch in length, and then changes to a pupa, which lies in the same cavity in the leaf, and in a week changes again and becomes the perfect insect.

**Black Prickly Worms Eating the Leaves of Canada Thistles.**

Accompanying the account of the destroyer of the Canada thistle, which was published in the Co. GENT. of the 7th inst., Mr. SNOOK favored us with specimens of two of the worms—one large, the other small—in a box with thistle leaves for their sustenance. This remittance reached me in good condition, and the reader will probably be interested with a somewhat particular recital of my notes and observations upon its contents.

When it came to hand the large worm had changed to a pupa or chrysalis, with the shrivelled prickly cast skin of the worm adhering slightly to it on one side. An inspection of the leaves showed that it is the habit



of the worm to fold and tie the leaves of the thistle together with silken threads, which it spins from its mouth; and when it is fully grown it selects a particular spot on the underside of a leaf, or a leaf stalk, and there fastens a small tuft of its threads, resembling a little mass of cobweb. Then clinging to this mass of threads with its hindmost pair of feet, it drops its body downward; the skin then cracks open on the fore part of its back, and the chrysalis, by writhing and bending, crowds itself out therefrom, and remains hanging with its head downward, being held from falling by some minute hooks at the tip of the body, which become fastened into the mass of silken threads.

The chrysalis somewhat exceeds half an inch in length, and is half as thick, of an irregular oval form, and a blackish color, clouded in places with dull yellow, and along its back are two rows of projecting conical points, of a brilliant golden lustre. On examining this chrysalis I now discover a place where it has been gnawed by a worm inside, which is evidently a parasite that is there feeding upon it.

The smaller worm was blackish brown, with some yellowish lines along its sides. When it came to hand it was so gaunt and starved in its appearance that I immediately supplied it with a fresh leaf of thistle, thinking when it was more grown and full fed I would examine and write out a description of it. But it did not eat any of the fresh leaf, and I now discover it is dead and shrunk to a small, shapeless mass; and in a fold of the leaf is a multitude of threads, holding in their centre a small white cocoon, which must have been formed by another parasite that has lived inside of this smaller worm till it killed it. The cocoon is marked with two broad, black bands, whence I infer it will, ere many days, give out an Ichneumon fly, which will probably be the *Banchus fugitivus* of Say.

Thus both the worms sent us have been destroyed by parasites, whereby we are unable to obtain from them this insect in its perfect state. There is no doubt, however, respecting its species. These worms are the progeny of a large, handsome butterfly, commonly called the Painted Lady, and scientifically termed *Cynthia Cardui*. This butterfly measures from  $2\frac{1}{2}$  to  $2\frac{3}{4}$  inches in width across its fore wings, which are blackish brown, with large, tawny orange spots occupying their middle part, and at their tips are three spots and two dots of white. The tawny orange spots on the right wing have a resemblance in their shape and relative position to a map of England and Ireland. Its larva feeds upon all the different species of thistles, and is occasionally met with also on the nettle, mallow, artichoke, and some other plants; and the species probably inhabits all parts of the world where its food abounds. I have received specimens of the butterfly from China and from Brazil, which are perfectly identical with those of our own country. It is also common in the different countries of Europe, and is recorded as occurring in northern and southern Africa, the East Indies, Australia and California. As thistles grow everywhere, so this insect which feeds on them appears to abound everywhere. These butterflies, however, are very fluctuating and irregular in their appearance, being quite common some seasons, and then nearly or totally disappearing for several years—their parasites probably becoming so excessively multiplied when the worms on which they subsist are

plenty, that they thereupon almost exterminate them. Instances are also related in which these butterflies, being very numerous, have become gregarious, like the locust, gathering together in vast swarms and migrating to other countries. A. FITCH.

## VINEGAR AND THE VINEGAR PLANT.

BY A HOUSEKEEPER.

**Vinegar.**—The best is made of cider, weakened and set in a warm place until it sours. If the pomace after cider or wine making is thrown into a vessel and covered with double its measure of water, it will, after fermenting, yield, when pressed, a large quantity of liquid that needs only time to convert into the best vinegar.

The juice or syrup from sorgho will make excellent vinegar if diluted until just pleasantly sweet. The juice may be had by fermenting the bagasse as directed for pomace above. We made two barrels of this in our first experiments with sorgho; it stood a year without souring; then we diluted with water, and in a few weeks it was good vinegar, and has improved.

A liquor prepared as for corn beer, allowing 1 pint of molasses to the gallon, and 1 gallon of good vinegar to 10 gallons of the corn liquor, and a teacup of yeast, rolled up in thick pieces of white paper, will make excellent vinegar. We took a premium on this.

**The Vinegar Plant.**—But we grow our vinegar now. From a friend in the Scioto valley we received a vinegar plant a year since. It is not, but is hardly distinguishable from the mother often found in vinegar. We put it by direction into a gallon of soft water sweetened with 1 quart of molasses. We keep it usually in our flower pit, and it now produces us a gallon of vinegar per month—beautifully clear and well flavored. It increases in layers, and ours would doubtless produce more vinegar if we had not distributed to our friends the new layers as fast as produced. We think it works better in a glass vessel in the light, but know it will produce in a barrel.

We call attention to the directions we have given for wine and vinegar; being used, especially the last article, so much in housekeeping, it is all important, for life's sake, that they should be pure. Chemical vinegar is as deleterious to health as the fatally drugged liquors that destroy like a plague in our land. We once in our housekeeping experience bought a jar of pickles. The last of them were left in the bottle without being covered with vinegar, and were in a few days wholly incrustated with copperas. Dr. Cone, Inspector of Liquors in Cincinnati, represents himself as going always armed with litmus paper, wherewith to test liquor; if containing impure substances the paper will turn red he says. We give this as useful to a housekeeper, who would surely repudiate anything containing the deadly drugs he asserts he constantly finds in the most costly wines and liquors. He likewise mentions the use of copper as a test. This will readily show the presence of the poisonous acids with which liquor is adulterated.

## Lumps on Calves' Necks and Under Jaw.

Hydriodate of potash 1 part—good lard 7 parts—mix well in a clean mortar, (not iron)—shear the hair off, and rub on a piece about the size of a walnut once a day, until they disappear.

Or, Iodide of potassium 1 part—lard 7 parts. Apply as before. This will cure lumps in the necks of oxen. St. Pie, C. E. Y. Z.

**PIG TROUGH.**—They have a monster pig trough in a swinery at Dorchester, England. It is 500 feet long, and calculated for 2,000 pigs to eat at one time from it.

EIDER DUCK---*Somateria mollissima*. LEACH.

The Eider Duck has long been widely celebrated on account of the exquisitely soft and bright down which the parent bird plucks from its breast and lays over its eggs during the process of incubation. Taking these nests is with some a regular business, not devoid of risk, on account of the precipitous localities in which the Eider Duck often breeds. The nest is made of fine seaweeds, and after the mother bird has laid her complement of eggs, she covers them with the soft down, adding to the heap daily, until she completely hides them from view.

The Eider Duck is a shy, retiring bird. From 45 degrees north latitude, to undiscovered regions, is their natural haunt. It is an admirable diver, its legs being placed very far back, and it obtains much of its food by gathering it under water, after the manner of nearly all wild ducks. The structure of its legs, which gives it such admirable facilities for diving, entirely unfits it for walking.

The inhabitants of the places where these birds breed, have perfected a system of robbing them of the down with which they cover their eggs during incubation. The plan usually adopted is, first to remove both the eggs and the down, when the female lays another set of eggs and covers them with fresh down. These are again taken, and then the male is obliged to give his help by taking down from his own breast, and supplying the place of that which was stolen. The down of the male bird is pale colored, and as soon as it is seen in the nest, the eggs and down are left untouched, in order to keep up the breed. Were this latter precaution not attended to, there would soon be no such birds as Eider Ducks. But the persons who collect the down know their own interests too well to "kill the goose that laid the golden egg."

The Eider Duck places its nest on some island, on rocks projecting well into the sea. The common number of eggs is from five to six. They are of a pale green color. A specimen in the writer's cabinet measures as follows:

Length: 3 inches.

Breadth: 2 inches.

Locality: Nova Scotia or Labrador.

Presented by the Smithsonian Institution.

This bird is believed to exist in both Europe and America, but we ourselves question whether it is the same species. We are not aware of a single bird that exists in both countries, that is *exactly* the same. Representatives on both continents agree with each other in many respects, but the observing eye of the ornithologist points out some distinction, however

slight. This difference is so slight in some cases that BUFFON conceived his theory about the degeneration of species from it. He stated that he believed that all the birds found in America were originally the same as the European, but that the climate, &c., had caused them to "degenerate!" Such was the European idea at that time of a country which is destined to stand first in importance to any in the world. But we who live in this age of enlightenment must make allowances for the dark age of science in which he lived, and overlook his errors as we would that others would our own, thus verifying the golden rule.

[A. O.]

J. P. NORRIS.

### CELLAR DRAINS.

To secure sufficient drainage, and to prevent the channels from becoming choked by sediment, much depends on the form of the bottom of the channel. We had recently occasion to take up and repair a cellar drain which had become obstructed, and had ceased to discharge water; and found the difficulty to result chiefly from a flat bottom, formed by placing horse-shoe tile in the usual manner on a plank bottom, as shown in fig. 1. The water which had passed into the drain, spread itself over the

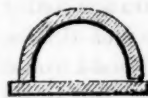


Fig. 1.—Horse-shoe tile wrongly placed.

whole bottom; the current was shallow and weak, and was incapable of carrying off the small particles of solid matter which it contained, and they were deposited, as a necessary consequence in the bottom. Successive layers finally choked the whole channel. Channels for a similar purpose, either above or below ground, are frequently made of boards or plank alone, with a flat bottom, and with a similar result. Had the corner, instead of the flat side, been placed downwards, the water would have been thrown together or concentrated, and instead of depositing sediment, have swept it off freely, and left the channel clear. The accompanying figures show this result distinctly; the first, (fig. 2,) representing the water as spread over the flat bottom, and the second, (fig. 3,) the same amount of water collected to-

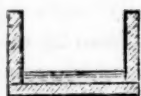


Fig. 2.—Box-channel wrongly placed.



Fig. 3.—Box channel properly set.

gether in the angle formed by placing the boards in a different position.

In constructing a drain for similar purposes of tile, the curved portion should always be placed below. If horse-shoe tile is used, it should be inverted, (fig. 4,) and covered with a stout sole, flat stone or plank. If tubular or pipe tile, (fig. 5,) is employed, no difficulty will occur—although the results



Fig. 4.—Inverted horse-shoe.

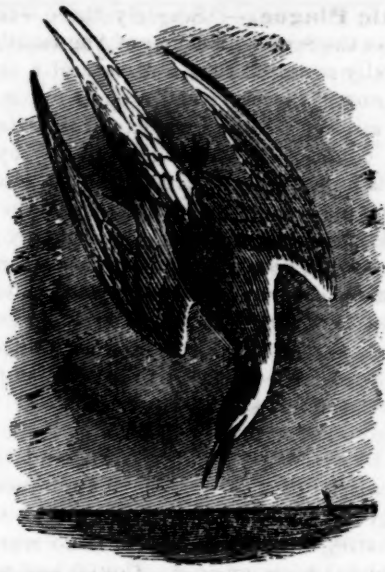


Fig. 5.—Tubular tile.

will be less striking than in an angle,—and a small tile will be better than one too large.

These precautions are not required in common land drainage, as the water, before entering, becomes thoroughly filtered, provided the drains are deep enough. They should be entirely beyond the reach of frost, which by disturbing the soil, always produces some muddy water. In loose or porous soils, the depth should be greater than in those of a compact or clayey nature. In this latitude the depth should never be less than three feet for the former, nor less than two and a half for the latter.



ARCTIC TERN—*Sterna macroura*. NAUM.

The Arctic Tern or "Sea Swallow," (as this as well as all of the genus are called,) is mostly seen on the wing, not often going to shore, except during the breeding season, but reposing occasionally on floating logs of wood, buoys, and similar resting places. Its food consists mostly of small fish, which is obtained by darting down from the air upon them, as represented in our engraving. When seeking for its food it does not rise to any very great height, but keeps hovering over the water at a distance of a few feet from the surface ready to pounce down upon and devour any small fish that may be unlucky enough to come to the surface of the water.

It is a rather northern species, being found on the eastern coast of the United States, from New-Jersey northwards. It is a very noisy bird, chasing its companions when not engaged in procuring food or "fishing," as the sailors call it, and uttering all the while an incessant loud cry.

In reference to its breeding, we find the following in RICHARDSON'S & SWAINSON'S "Fauna Borealia-Americana:—"

"This Tern breeds very abundantly on the shores of Mellville Peninsula, and on nearly all the islands and beaches of the Arctic Sea. The eggs are very obtuse at one end, and taper very much at the other. They vary in color from a light yellowish-brown to bluish-gray, and are marked with many irregular brown spots of different degrees of intensity. They lay them right on the beach, which is gravelly or sandy as the case may be. The parent birds show much anxiety if any one approach the eggs."

An undoubted specimen in our cabinet, from Hudson's Bay, measures as follows:

Length: 16.8 inches.

Breadth: 12.8 inches.

Oval in form, rather sharp at small end. Ground color olive, blotched irregularly with dark amber; the blotches being larger towards the large end.

Other specimens in our cabinet from various localities, show considerable difference in markings, &c. Great care must be observed not to confound Wilson's Tern, (*Sterna Wilsoni*) with the present species, which it very closely resembles. This applies particularly to their eggs, and we can say with confidence, that of the many thousand eggs in collections labelled *Sterna macroura*, not one-half are really *Sterna macroura*, but ARE *Sterna Wilsoni*.

J. P. NORRIS.

#### YARDING COWS NIGHTS.

MESSRS. EDITORS—There is one subject of some importance, that I believe has not been thoroughly discussed in your columns, or at least very recently. The question is, which is the most economical plan for cows that run out to pasture in summer, to yard them on a plenty of straw or other litter, or drive them to pasture every night after milking? In New-England both and every other way is practiced; some drive to a good pasture; some to a poor one, perhaps to a bog with upland enough around the edges to give them a place to lay down, while the manure goes where it does no good. Others put them in small lots where there can be little or no feed; (this practice will make a small lot rich;) others yard them in small pens, where the manure is not scraped up, but left to dry up or go off in the atmosphere—in this case, liquid and solid is a total loss; while still others keep them in the yard where they milk, with a plenty of straw to keep them clean, thus converting many loads of straw into manure for fall use. Now I consider this the best plan for the saving of manure for immediate use; but is not this manure made at the expense of the usefulness of the cow? Who will answer?

There is one other practice that I have not named. I notice that many dairy farms are so situated that the cows have access to the barn at all times from their pasture, which extends over one side or nearly all of the farm, and are kept in this one great pasture the season through; sometimes they are left in the yard, with the gate open to go out and in as they choose; sometimes shut out of the yard, to lay down near by or go to their old pasture, which they seldom do, but lay down near by until daylight, when they are off to pasture, and you rise just in time to see the tail of the last one half a mile off, just when you want them in the yard. Now this I consider no better than yarding the cows, and not as good, for they spoil an acre of land nearest the barn, and no manure of any account made in the yard. This is not all. Cows will not do as well drove to the same pasture night and day, as they will to have a day pasture and a night pasture. Whether they will do as well to be kept in one day pasture through the season, or have a change, I shall not stop here to discuss. I will leave that until some other time, or for some other one to do.

Cows are naturally discontented or uneasy, and like a new pasture every few days. Give them a new place and the best of rowen feed, and in three or four days they will want to go to their old pasture or some other, and for some years past I have studied their habits and come to this conclusion, that cows should be driven to different places nights and days, if drove at all nights. My farm is so situated that a part lays north and a part south of my barn. The cows come to the yard every night and morning, where there is good sheds to milk under when it rains.

A cow will consume one acre of good grass for night pasture alone in a season, and do much better than to be yarded. This is my experience. When my yard-door is rolled in the morning after milking, if the cows were drove south at night, they will of their own accord go north in the morning, and when in the pasture they will go straightway to eating; but if they are driven back to the same field they were just from in the morning, they will many times stay or lay down by the bars until the dew is off the grass, which lessens the flow of milk. L. F. SCOTT. Bethlehem, Conn.



ALBANY, N. Y., OCTOBER, 1865.

**Aspinwall's Potato-Digger.**—We had an opportunity of witnessing the operation of this new labor-saving machine on a farm near this city, last week. The engraving given in Mr. ASPINWALL'S advertisement in this paper, furnishes a correct view of it. "The driving wheels run between the rows or hills, while the plow is set so as to cut just beneath the potatoes, which are carried or forced back with the earth and vines, by the forward movement of the machine upon the double acting vibrating separators, which thoroughly separate and discharge the vines and potatoes in the rear. The depth of digging is regulated by the pin holes in the standards to which the eccentric levers are fastened for raising and lowering the plow at the end of each row, or when driving from the field. The separators are made of iron, with quarter inch steel rods placed cross-wise, which run upon rollers underneath the plow, and swing upon hangers in the rear. The vibration of these separators are contrary, or one up and one down, and so peculiar as to carry every thing backwards that falls on them; the motion being nearly as fast as the cutting bar of the mowing machine. It is built wholly of iron and steel, with the exception of the pole." From the engraving and this description, the reader will get a pretty accurate idea of this potato-digger, which, from what we saw of it in operation, we think promises to be a most useful invention. The soil on which it was used, was light and dry, and the potatoes, though many of them were very small, were laid out on the rows ready and convenient to be picked up. It was estimated that on such land, three to four acres a day might be dug with this machine, by a man and span of horses.

**Death of a Western "Cattle-King."**—The Prairie Farmer says: "A few months ago we chronicled the death of Senator Funk and his brother, of McLean county, and now comes the painful intelligence of the decease of Jacob Strawn, the great landholder and cattle dealer of Morgan county. Mr. Strawn emigrated from Ohio to Illinois in 1850. He began life in the former State as a teamster. Upon his arrival here he entered 500 acres of government land, at \$1.25 per acre. To this he has, from time to time, added largely, until he became one of the largest landholders of the State, and from the gradual rise in the value of this property from government price to 40 or 50 or more dollars per acre, must have been worth some million and half dollars. We believe at the time of his death he was the owner of something over thirty thousand acres of land, mostly in the fertile county of Morgan. Besides this, he was possessed of considerable property in the city of Jacksonville. The cash value of his farm stock was also immense. Mr. Strawn was a very eccentric man, and rather gloried in being considered so. He was remarkable for great force of character, great personal endurance, and strict integrity. He was not illiberal, as his donation of \$10,000 to the State Sanitary Commission attests."

**Cotton in California.**—S. W. JEWETT writes to the Secretary of the California State Agricultural Society, that he has "over 100 acres of land bearing cotton that looks as promising, or more so, than any grown in the Southern States." There is a bounty on 100 bales and 100 acres of cotton, offered by the State, which he wishes to obtain.

**The Cattle Plague.**—"Scarcely three weeks have elapsed," says the Scottish Farmer of August 9th, "since it was generally rumored that a disease of a dangerous though unknown character had broken out in London dairies, and already we have reports of its extension to the furthest confines of England, while day by day we are told of its appearance in new localities. In London which may be looked upon as the centre of the malady, and from which it appears to have originally spread—the latest accounts speak of it as in no way mitigated from its primary severity; whilst in nearly all the adjacent counties it has acquired a considerable prevalence."

All accounts agree that this plague is as infectious as it is fatal. From two-thirds to four-fifths of the cattle in herds once attacked seem to be destroyed. The article above quoted describes the disease as "a fever, with a tendency to extensive inflammation, and to ulceration, particularly of the mucous membranes, associated with great prostration of the vital powers, and early terminating with death." It is no wonder that intense alarm has been excited. Contagion and infection appear to have been widely disseminated, and it is not known when the pest will end its course. It is supposed to be analogous to, if not precisely identical with, what has been known as the cattle plague for many years in Russia, and other parts of Eastern Europe.

**Diehl and Soules Wheat, &c.**—JOHN JOHNSTON, under date of near Geneva, Aug. 23, writes us as follows: "I have got one barrel of the so-called Diehl select wheat, and I shall be much disappointed if it is anything else than the Soules wheat, which I have grown ever since 1844. I sent many hundred bushels of it to Indiana and other Western States, a number of years ago, and often thought it would be well to get some of it back, thinking it might do better than that grown in this State for the last 20 years. The only difficulty in raising Soules wheat here now, is that almost every year it turns all yellow in April, and if warm growing weather don't immediately set in it never recovers, and makes a poor crop. Sowing after the 20th Sept. is generally a preventive, but that of late years is thought to be too late.

Wheat don't turn out so much on thrashing as anticipated. The high winds in the flowering season I think is the cause, as there are a great amount of imperfect kernels. On land exposed to the winds, I have no doubt the loss from that cause is as least 33% per cent.

Apples, none. Potatoes, excellent; so far no rot. Oats and barley I think a good crop. The quality of the wheat is good when the imperfect kernels are cleaned out. Wheat brings a good price."

**Fine Peach.**—Mr. WM. McCAMMON of this city, last week presented us with specimens of a seedling peach from a tree which came up in his garden nine years ago. It first produced fruit last year. The fruit is of large size, rich; the skin very thin and beautifully colored, and the stone small, from which the flesh separates freely. It is well worth propagating.

**Not Encouraging.**—We find the following item in the Springfield Republican:

Mr. J. S. Grinnell, the experienced chief clerk of the agricultural bureau at Washington has been removed from that office by Commissioner Newton, and his place supplied by a Mr. Stokes, nephew of the latter. Mr. Newton has not increased his popularity at Washington or anywhere else by that move.

This is bad news for those who had any hopes of the future usefulness of the Department.

Prof. JOHN A. PORTER of New-Haven, we are pleased to learn, has recently returned, after a years' absence in Europe, greatly improved in health by his travels.



**American Wines.**—The wines shown at the recent State Fair at Utica included a number of samples from the Pleasant Valley Wine Co., Hammondsport, in this State, and from the neighborhood of St. Louis, Mo., the latter from Dr. L. D. MORSE, Sec. of the State Board of Agriculture. Other samples from various exhibitors were also shown, but none of them equal in merit to those above specified, and nearly all manipulated by the addition of sugar or otherwise, so as to render them something else than the *pure* product of American grapes. The Missouri samples, including still wines made from the Catawba, Concord, Delaware, and Norton's Virginia grapes, were of excellent quality, but manifesting unexpected differences to the taste from those exhibited by Mr. CHAMPLIN of Pleasant Valley. These differences rendered them the pleasanter of the two to some judges, (while others decidedly preferred the vintages of Steuben county,) and were due probably to differences of soil and climate, rather than in modes of manufacture. The Pleasant Valley Wine Co. exhibited wines made from the Diana, Delaware, Catawba, and Isabella. Of the last mentioned there were two kinds, one light colored and the other a claret, the deeper tinge of which was owing to its remaining longer on the husks. Of the Catawba there were both still and sparkling. The latter was a great improvement upon that heretofore shown by the same company—an improvement to be ascribed to better processes in making, and it met with the unqualified approval of many capable tasters, comparing favorably in all respects with the best champagnes of French vineyards. The still Catawba is an excellent wine, slightly acid, but at the same time containing a fair amount of native sugar, and therefore of good body, and possessing more character than that exhibited from Missouri. In the samples of Delaware wine, both from Pleasant Valley and from St. Louis, we were somewhat disappointed, the superiority of the grape, as eaten from the vines, not being apparently maintained in the wine it produces. Dr. Morse expressed a high opinion of the Concord as a wine grape, owing both to the quality of the wine, and to the productiveness of this variety in large and handsome clusters from which a good return may be obtained if marketed to the extent of the demand directly from the vines. Norton's Virginia furnishes a wine sold at St. Louis for a higher price than any other, and partaking of the character of Burgundy rather than Bordeaux—being of deeper color, richer in flavor and greater body than most samples of the latter.

In addition to the above, Mr. F. C. Brehm of Waterloo, exhibited Diana wines of 1863 and 1864, which were of very creditable quality, and should not be passed over without notice.

With the success of the Pleasant Valley company, it appears to be fully proven that where soils and situation are favorable, there is nothing to prevent the manufacture of a good wine in our latitude. What we want is to know just what sort of product our native varieties will yield—not by doctoring them up in the fancied hope of imitating something of foreign growth, but simply by careful manufacture to obtain the best results of which they are capable. The taste for the clarets of France and the hocks of the Rhenish Valley is an acquired one, and if attention is directed to wines of home growth there is no reason why the former should usurp the market to their exclusion if well made and having a fair opportunity to establish their reputation. We can conceive of no basis on the part of the consumer for a preference of the imported article to the best samples of home growth, except from habit and fashion; and if the money sent abroad to buy wines can be in part at least expended at home, the country will certainly be the gainer to that extent—whatever differences of opin-

ion there may be as to the propriety of using wines at all, unless strictly for medicinal purposes.

**Ellwanger & Barry's Nursery.**—On a recent visit to this celebrated establishment we found the same high finish and perfection in every department that has existed for several years. On entering the grounds one of the most striking features is the perfection of the broad lawn, interspersed with rare evergreen and deciduous trees. This lawn is kept constantly mowed with Swift's new lawn mower which cuts by horse power, with great rapidity, and with mathematical evenness, within half an inch of the surface of the ground, carrying off the cut grass. A grass walk about ten feet wide and nearly half a mile long, as smooth as a ribbon, is bordered on each side with the most brilliant display of bedded and other flowering plants. Their vast collection of dwarf and other specimen trees, although not bearing heavily, furnish many very perfect specimens.

The nursery of fruit trees which continues to cover about 500 acres, affords a vast supply for planting, and the trees are of remarkably fine growth. Among them is half a million saleable dwarf and standard pears.

To the above note from Mr. THOMAS, we add our acknowledgments to Messrs. ELLWANGER & BARRY, for a basket of pears, among which were a dozen or more of the fine varieties grown on their grounds, such as have attracted so much attention at several of the recent horticultural exhibitions.

**The Cornell University.**—A meeting of the Board of Trustees of this institution was held at Ithaca Sept. 5th, when the Board was formally organized. The most important business was to make secure the donation of Half a Million of Dollars from EZRA CORNELL, the liberal founder of what promises to become one of the noblest institutions of practical learning in the world. On motion of Mr. Brooks, Messrs. E. D. Morgan of New-York, Kelly of Dutchess, and Schuyler of Tompkins, were appointed to examine and report upon the gift and its security, and after conference with Mr. Cornell, the committee reported for the consideration of the Board, and the approval of the State Comptroller, that the gift of half a million would be in the form of a bond, backed by good securities, paying not less than seven per cent. interest.

**Rather Enigmatical.**—We have received the following letter, and submit it without comment:

MIDDLEBURY, VT., Sept. 15, 1865.

ED. CO. GENT.—Sir: In your paper of Sept. 7th, you ask me several questions, and request answers. I do not propose to answer any of them at present: but at some future day may answer all of them. Yours,

EDWIN HAMMOND.

**Domestic Poultry.**—Mr. JUDD, 41 Park Row, New-York, now our leading Agricultural Book Publisher, has just issued a very neat and useful Manual on this subject, from the pen of Mr. S. M. SAUNDERS of Staten Island. Price—paper, 30 cents—cloth, 60 cents.

**Entomology.**—We learn that the Publication Committee of the Entomological Society of Philadelphia purpose to publish, and issue gratuitously, an occasional Bulletin, under the title of "The Practical Entomologist," in which papers on the insects injurious and beneficial to vegetation will be given for the benefit of the American farming interest. Those desiring to contribute for this bulletin, and receive it as published, should address E. T. CRESSON, Secretary, Philadelphia. The Society is desirous of receiving specimens of noxious insects from different parts of the country, and will endeavor to answer any inquiries by which they may be accompanied, through the medium of the "Practical Entomologist."

Will the vexed questions of Merino pedigrees and nomenclature ever be set at rest? For an allusion to the self-evident fact that the claims of any particular flock "to purity of descent from any one Spanish source," are "surrounded with obscurity,"—we were last winter subjected to a series of attacks in the Sheep Department of a contemporary, of which the best that can be said is, that they were neither a credit to the Agricultural press, nor to the candor of their author. In our columns of Aug. 24th, there appeared certificates showing that Messrs. HAMMOND and ATWOOD respectively in 1847 and in 1844, were selling their sheep as Paulars, and formally asseverating the purity of their descent as such. The entire genuineness of these certificates the Rural New-Yorker of Sept. 2, "fully admits. But Mr. Atwood "was mistaken." Mr. Hammond "was mistaken." It now appears that these two men, who have made sheep-breeding the business of their lives, did not know anything about what "one Spanish source" their particular flocks came from! There is no "obscurity," perhaps, in this!

In the CULTIVATOR of 1844, and repeated in the Rural New-Yorker of the 5th ult., similar certificates—only, if anything, less clear, positive and direct, than those of Messrs. Atwood and Hammond—were published to show that certain other sheep had been bought and sold as Paulars, at various periods from 1811 to 1830. There are those who think that there were "mistakes" also in these pedigrees; and the all-sufficient reply to them has been that Judge Lawrence was an honorable man, and that Gov. Jennison was an honorable man, and that to question the correctness of the documents they had signed, is to "involve a sweeping impeachment of witnesses," to charge them with "intentional falsehood," and to give utterance to "slandrous accusations." Why does not the same rule apply in the one case as in the other? Is the "obscurity" any the less? Are the statements of Lawrence and Jennison, at second hand from the breeders, Cock and Bedell, any more sacred and infallible, than the explicit assertions of Atwood and Hammond, breeders themselves? Are Atwood and Hammond, any more than were "Rich, Jennison, etc.," the "kind of men to attempt to manufacture a pretended pedigree?"

Of these two horns of the dilemma, raised by the erudition of the Rural New-Yorker on sheep matters, which are we to take—either that Atwood and Hammond, in 1844 and 1847, were entirely ignorant of the sheep they were breeding, or that they "intentionally" presumed upon the ignorance of the public?

But, granting the entire purity at some more or less remote period, of the "Paulars" of Cock and Bedell in 1811 and 1844, and of the "Paulars" of Atwood and Hammond in 1844 and 1847,—we are next met by the confident assurances of the writer who places the above interesting dilemma before us,—that each of the two families, has ever since been kept entirely pure and distinct. Others express doubts on this point. If written certificates are to rate either as utterly unimpeachable on the one hand, or as a parcel of trifling "mistakes," on the other,—just as may suit the purposes of an argument, or to free certain flocks from the imputation of any connection with "second-rate sheep,"—of course either view can be substantiated to the satisfaction of those who hold it. To an outside observer, however, it seems to be sufficient evidence of some "obscurity" in the matter, that the "Paular" name certified to in 1844 and 1847, and the "Infantado" name discovered in or about 1861, neither proving satisfactory, the necessity arose for the "adoption" of some new appellation confined by no narrow limits of pedigree or breed. What should it be?

The leading requisite in the new name, aside from an

imposing sound, was an especial association with a particular type of sheep, in the first place, and, in the second, a sweeping grasp including all other Merinos, *nolens volens*. What better name than "American Merino" could be devised? There being no formalities of pedigree required, and no standard of merit except the flock of the one "great improver,"—that flock and its descendants were at once put at the head of all others. Does a judge of sheep prefer some other type,—does he honestly think that the "improved" ram lessens the value of his wool more than it will increase its quantity, or that its merits are the results of a forced system of treatment, and will not be perpetuated in ordinary management,—no matter; "wool-growers' associations" are founded, the class of "American Merinos" is introduced, and, in that class, who can receive awards except those who possess the genuine American-Infantado-Paulars, from the very flock of the originator, the sole and primal source of excellence?

Now this has all been very prettily devised and tolerably well carried out. In this State, a gentleman of established position and weight of influence which it would not do to disregard, happening to be the breeder of Silesians, the establishment of a class of "Broadcloth Merinos" was graciously conceded, and against much opposition a third class was worked in at Canandaigua, in which those who did not repose entire confidence in the "American Merino" might seek a scanty shelter for their lack of faith. And in Vermont, as events have succeeded one another, the feeling of dissatisfaction has been constantly increasing, and now shows itself publicly and strongly through the press.

One man as we understand, had the foresight to perceive the probable fate of the "American" name, and the opposition it would arouse. That man was Mr. HAMMOND himself, at the time when, ostensibly rather against than in accordance with his wishes, if we are rightly informed, the new designation was "adopted" at a little company of Vermont sheep men who elected to call themselves the "New-England [we wonder it had not been the "American"] Wool-Growers' Association." And in the present position of affairs, Mr. HAMMOND himself may throw great light upon various controverted points, and set at rest many injurious rumors which other Vermont breeders are beginning to disseminate. From our Vermont exchanges, from our Vermont correspondents, from the stories that are beginning to be circulated outside of Vermont,—we judge that Mr. Hammond owes it to himself, and his friends and customers, to pronounce distinctly on certain points: 1. Will he kindly say over his own signature that he has kept the Humphreys blood "*absolutely pure*" from his first purchases of Atwood down to the present day,—not "pure" in the sense of breeding in a cross and "breeding it out again," but *wholly unintermixed* with any other strain or breed? 2. Will he kindly say whether, being thus "*absolutely pure*," he believes his sheep to be either Infantadoes or Paulars? 3. Will he kindly add whether he also calls *his* sheep "Spanish Merinos" or "American Merinos"—in other words, whether *he* has or has not, permanently adopted the latter name? He will please bear in mind that we ask these questions in no captious spirit,—that we would not detract an iota from the great credit he really deserves as a breeder,—and that our only hope is to aid in ending this long talk about names and families, by placing the weight of his established authority on the side of the facts of the case. The public are now alone interested in what Mr. HAMMOND will himself say, and not in what others may choose to say for him. Our columns are open to his reply.

Out of debt, out of deadly sin



## Inquiries and Answers.

**Plan of a Stock Barn.**—I wish to build a barn exclusively for stock, and have the position suitable for a basement stable, and wish to obtain a plan that will enable me to build so as to shelter and feed stock with the greatest ease and advantage. I wish to provide only for oats, hay and stock within the barn. The basement for cattle (fattening) or mules, and the main floor for mares, colts and horses. Now what I wish is for you to send me the best plan you have of a barn for stock purposes. The barn ought to stable 75 or 100 steers and 75 or 100 mares, colts and horses, and hold a large amount of forage. I can have water below and above by pumping, so as to water within doors in bad weather. I must drive entirely through the barn, and this driveway ought to be of sufficient capacity to cut straw, grind corn, or shell it, &c. I have 560 acres, and will another year have it nearly all in grass, intending to cultivate not over 100 acres, almost believing that stock will give me less annoyance and care as to hired help, and my wife much less trouble in the house. J. W. L. Irving, Ill. [Our correspondent may construct a barn for his purpose similar in its main features to the design described on page 133 of the ANNUAL REGISTER for 1862, the view of which is given on page 125; and which admits a drive lengthwise through the whole building. The basement may be made like that represented on page 138 of the same number, allowing a curve at each end for the entrance of the team. The capacity of such a barn, or the number of animals intended to accommodate may be increased to any extent by merely lengthening the building.]

**Concrete Buildings.**—In reply to the inquiry of "W." in your journal of the 3d of August concerning "Concrete Buildings," I would state that his failure arose from want of care in perfectly slaking the lime used, before mixing it with the gravel and stones. Dobson, an English author, says, in regard to the preparation of beton: "The lime must be ground or beaten, and before being mixed with the gravel it must be slaked, and allowed to stand for a considerable time, to ensure the thorough slaking of every particle." The effect of neglect of this, is "that the more refractory particles continue to expand (in slaking) in the interior of the mass, after the outside has set perfectly hard, and the whole becomes more or less disintegrated." M. KINEALY. Hannibal, Mo.

**Raising Hickory.**—I wish to ask if hickory nuts will grow if planted like corn, in rows four feet apart, and three feet between the hills? I believe that it will pay to plant them for hoop-poles if they can be made to grow like corn, so that they can be cultivated with a horse and plow. I planted three bushels of them last year, but they would not grow; but they might have been too dry, or it might have been the wrong time of year—the fall. NATHAN P. FLOREL. Jennings, Ind. [The hickory will grow from the nut provided it is kept moist in damp sand, moss or peat, from the moment it drops from the tree, and is exposed to freezing and thawing. Cracking so as not to injure the kernel, would facilitate growth. We are glad our correspondent is attempting to raise timber—its destruction is so general, and so little attention is given to replacing it, that we regard every effort of the kind as true patriotism.]

**Time for Cutting Corn-Fodder.**—Your valuable paper gave us this season some very interesting articles on the culture of "corn-fodder," but none of them defines clearly when is the proper time for cutting and curing. C. K. [The proper time to cut corn-fodder is when the leaves begin to wither from age—corresponding with the time that common corn becomes well glazed in the ear, the stalks yet remaining green. The stalks may be laid down and dried a day or two in the sun, and then bound with osier, which is best, or with rye straw or cornstalks, and then placed in large, even, erect shocks, and bound firmly with large osiers. If well made they will stand even without sagging until winter, when they will be well dried and may be drawn in as needed. If placed in stacks of considerable size they will heat and ferment, even after drying some weeks in the shock.]

**Broom Corn.**—Will you do me the favor to recommend to me some work or essay on the cultivation of "broom corn," or elicit from some of your numerous contributors a paper giving the general outline of the cultivation, management, &c., of it as a field crop. My information is scant on this subject, yet I fancy that in our exceedingly fertile valley it

would prove highly remunerative. I desire especially to know its greatest and average yield per acre, in pounds of brush and bushels of seed—its greatest and average value per ton—also value of seed as feed for stock, as compared with corn or oats—what character of soil best suits it—what is the proper preparation and cultivation—what quantity of seed is required per acre, how planted, and subsequent management. These and any other facts relating to the cultivation, harvesting, preservation and management of this crop, from the pen of some gentleman of experience, through the columns of the COUNTRY GENTLEMAN, would be no doubt of considerable interest to many, at least to the writer. B. T. Coalsmouth, W. Va. [We know of no treatise on the culture of Broom Corn, but all the details for which our correspondent asks, have been given in former vols. of this paper. We shall, however, be pleased to receive from some one well posted on the subject, a full account of its culture, embracing answers to all the above inquiries.]

**Implements.**—Are Nutting's Fan and Assorting machine, and Aspinwall's Potato Digger, as good implements as they are represented to be? Would a digger pay for six acres good potatoes, where labor is worth \$1.50 per day? D. J. S. [Nutting's Fan Mill we certainly consider one of the best machines of its kind. Aspinwall's Potato Digger is worthy of trial, but as to its economy in a field of six acres, we cannot decide.]

**Mange on Dogs.**—Permit me to inquire through your paper, what is the best way to cure that pest with which dogs are troubled? Mine is a fine Colly dog that "howls" every year with it. I have tried shearing and washing, but without effect. By throwing any light on the subject you will greatly oblige both myself and dog. Y. Z. St. Pie, C. E. ["Dinks," in Frank Forester's Dog Book, says that mange is caused by dirty kennels, neglect, want of nourishing, or improper food. "Cure—1 oz. of salts, if dog of moderate size. Rub every third day well into the skin quantum suff. of the following mixture: Train oil—tanner's will do—1 quart; spirits of turpentine, 1 large wine-glass full; sulphur sufficient to let it just run off a stick. Mix well. Three applications are generally sufficient. Let it stay on the animal a fortnight when wash well with soap and water. Remember, it takes nearly two hours to scrub the above into the skin. Smearing over the hair is no use. It must get well into the skin; and if neatly and properly done, the dog scarcely shows the application."]

**Where to Buy a Farm.**—I have about six thousand dollars which I want to invest in farming, and the question arises, "Where shall I go?" Shall I go to the South, about which I hear so much? The objection here, I think, is the unsettled state of the country, which I think for years will render life and property unsafe. Shall I go to the West? Or shall I remain where I am here in New-Jersey? The objection to the latter plan seems to be, that good land here is so high that my small capital would purchase but a small place, after leaving enough to properly stock it, and a working capital to commence on. Now what I want, is your advice as to where I could invest my capital in a farm to the best advantage in a pecuniary light. A CONSTANT SUBSCRIBER. [Every locality has its advantages and disadvantages—the unsettled state at the South makes fertile land cheaper than it would be otherwise. Our correspondent must decide for himself between these difficulties. Probably if a company of Northern farmers, say a dozen or twenty, or still better, a hundred, could move to some place not very far from civilization, say the Shenandoah Valley, they could assist and protect each other, and prevent the wrongs and disadvantages which an isolated individual would meet with.]

**Cans for Fruit.**—Can you tell me which is the best can or jar for preserving fresh fruit? G. H. [We have for the last two seasons used Mason's patent Fruit Jar, advertised in this paper, and we consider it altogether superior to anything of the kind we have seen.]

**Farmers' Insurance Company.**—I recollect an inquiry in the Co. GENT. a few weeks since, asking if there was any Insurance Company which insured live stock. Not having noticed any answer to it, I will give my experience. In the month of August, 1864, I insured my farm buildings and live stock in the Farmer's Joint Stock Insurance Company of Meridian, Cayuga Co., taking a policy of \$3,300 for three years, which cost me about \$28.50—(80 cents per \$100 for three years. I think now they have reduced their rates to 60 cents per \$100 for three years.) During the months of October and Novem-

ber I had some sheep killed by lightning while grazing in the pasture. I made my claim for the loss to Mr. E. R. Ballard of our town, the Co.'s agent, who, after hearing the facts of the case, promptly paid the claim. Also in the month of June last I had a fine Black Hawk stallion two years old killed by lightning. I again made my claim on the company, and the demand was promptly paid in full. E. DENNISON. *Forestville, Chautauque Co., N. Y.*

**Arbor Vitæ for Hedges.**—Will you give me some information for Hedges—how the ground should be prepared—how far apart to plant—what size plants are best—where, and at about what price they can be obtained—how they should be pruned—when is the best time to plant out, and how near a stone wall they should stand? I wish to plant such a hedge inside of a stone wall, on a road front. Will cattle injure it? Please inform me also how to gather the Arbor Vitæ seed, and how to plant and raise the plants. ARBORETUM. [The plants of the Arbor Vitæ may be usually obtained from most nurserymen. The price varies much with the supply and size of the plants—from three to five dollars per hundred, and \$20 per 1,000 and upwards. For long lines of hedge, about one foot high is a convenient size to transplant—for shorter distances, two or three feet high may be used, if desired to form screens soon. The Arbor Vitæ is not stout enough for a farm barrier, but forms a fine screen against the wind, and for the exclusion of the sight. For a hedge strictly the distance may be a foot apart, but good screens will be formed in a few years if planted three or four feet apart. This tree does not grow well in the shade, and the interior of the hedge is liable to become denuded of foliage if smoothly and evenly sheared. A better way is merely to cut back the surface with a knife somewhat irregularly. They will grow best on a good fertile soil, and the ground must be kept cultivated for some years for several feet wide. If near a stone wall, there should be good cultivation on one side at least. The seed are secured by gathering the cones before the seed drop. They must be planted very shallow, in fine rich mold, and be shaded from the sun the first season.]

**Oats.**—A short time back a farmer told me that oats required a "cold bed," and that corn stubble plowed in the fall could be harrowed and sown with oats the following spring without again plowing. Is this so? I understood the reverse was the case. Can you inform whether ashes (pot or pearl, by adding soil or muck to it.) can be made as beneficial to land as the ashes would be before manufacturing, and if so, what proportion of soil, &c., ought to be used for the purpose? I find after barn-yard manure that ashes for most crops, particularly for corn, is best. A SUBSCRIBER. *Nyack.* [It will doubtless be always best to plow the land for oats early in the spring, before sowing the crop. The loosening which it thus receives will be a positive benefit. There may be instances when the delay required to plow wet land will be a greater evil than the imperfect seeding on autumn plowed ground. It would be better to use such land for something else, until drained. The same amount of potash, applied in crude wood ashes or as clear potash, will produce a similar result, provided both are well diffused through the soil. We should prefer the ashes, both on account of its containing other ingredients which may be useful, and on account of the greater facility of spreading and less danger of injuring the plants by being too concentrated and caustic. Ashes or potash are nearly always useful, if applied in moderate doses—say at the rate of 50 or 100 bushels of fresh ashes per acre; but where it already exists in the soil, it would be of no use.]

**Moles.**—Can you give me any prescription for the banishing of ground moles? Trapping is slow work; my lawn and place is infested with them. S. WANN. *Staten Island.* [Cats are said to be the best animals for destroying ground moles—we have known large numbers to be brought in by them. Rat-trappers would probably be efficient.]

**Iron Pipe for Water.**—I noticed in the September issue of the CULTIVATOR, an article by J. S. D., relative to "gas pipe," or wrought iron pipe for conveying water. Can you or some of your correspondents, inform me where it may be obtained and the cost per foot? J. N. W. *Rupert, Vt.*

**Muck Dressing.**—Would it answer to put a coating a foot deep, of black salt river mud, on a gravelly piece of land, preparatory to seeding down in grass? I have never heard of its being used, but I should think that the mud thoroughly mixed with gravel, would have a good effect. J. B. P. *Darien, Conn.* [Much will depend on the character of the

muck. If grass will grow freely upon it when dry, it will, of course, be an improvement to gravel. Try it first on a moderate scale. A dressing of one foot is very thick—try plots of it at different depths, say three, six, nine, and twelve inches, and note the result.]

**Mock Turtle Soup.**—Will some kind reader of your excellent CULTIVATOR please give us through its columns, a recipe for making mock turtle soup, and much oblige A SUBSCRIBER'S WIFE. [We look to some of our housekeepers for an answer to the above.]

**Roller with Dumping Platform.**—Will you or some of your correspondents, give through the columns of the Co. GENT., a plan for a good roller with a platform attached, and so made that a load may be dumped, the same as with a cart. A SUBSCRIBER. *Little Valley, N. Y.* [Will some of our readers who are familiar with the construction and use of this kind of roller, please furnish the details.]

**Warts on Cows' Teats.**—In answer to the inquiry in No. 6 of Co. GENT., for something to remove warts from cows' teats: Wash with strong limewater. J. H. H. *Urbana.*

**Fleas on Dogs.**—I have a much valued dog, very badly troubled with fleas. Can you furnish a remedy? B. C. [A correspondent of the London Field answers a similar inquiry as follows:—"One of your correspondents complains of the plague of fleas on dogs. It would be a charitable act to all dogs, if you will insert my receipt, which I have found to answer so very well with dogs of mine, who this year have swarmed with fleas, which insects are innumerable about here. It is as follows:  $\frac{1}{2}$  lb. lard and 3 oz. powdered sulphur pressed together through the fingers, then melt. When melted add three wine glasses of tar, which mix well and rub into the dog's coat; leave no part undressed."]

**Lawn Mower.**—H. W. P., *Guelph, C. W.* We think you can procure such a mower as you want of R. H. Allen & Co., 189 Water-St., New-York.

**Subsoiling.**—Will you please give some directions for subsoiling? What plow is best—where can it be obtained—is it iron or steel—what is the probable cost of it—how much team is necessary to use it—how can it be used, and how much can be done with it in a day? A SUBSCRIBER. [Subsoil plows may be obtained at the principal agricultural implement stores throughout the country. They are usually of cast iron. In clayey or adhesive ground, those with narrow vertical shanks run most easily. Small ones are drawn by two horses, large ones by four, and they run in the bottom of the furrow of the common plow, and must consequently be worked with it, going over the same extent of land in a day. The depth varies with the character of the soil and the size of the plow, and varies from six to twelve inches below the bottom of the common furrow. A good subsoil plow may be had for about \$12 or \$15.]

**Tree Diggers.**—W. B. of Butler Co., Ohio, inquires for "Tree-Diggers," such as nurserymen use. We suppose he alludes to stout spades. D. B. Barton & Co. of Rochester, have formerly manufactured excellent steel spades for this purpose, bearing the utmost strain of a stout Irishman, and lasting many years. The price formerly was \$5 each.

**Root Grafting.**—A. R. G. of Burnside, Conn., requests some information on root grafting, more particularly in relation to cutting the root into small pieces. We have tried them at different lengths from one to six inches. Very short pieces are not so likely to grow, and when they do they furnish fewer but larger roots, and less of firmly branched fibrous ones—rendering them less valuable for transplanting. When the roots are of strong, one year seedlings, cut three or four inches long, they make good trees and but little, if any, inferior to those worked on the whole root. Budded trees, however, worked on stocks which remain in the rows, generally have better roots than those propagated by root grafting.

**Stump-Machines.**—Having noticed several inquiries about "stump-machines" in your paper, the last of which, from W. H. L., is accompanied with a request from you for a reply, I will give my experience. In this section we pull pine stumps mostly—all sizes up to four feet diameter across the trunk. The large ones pull hard, very hard. With our machines, one pair of oxen, and three men, we pull perhaps 20 stumps a day on an average. Machine similar to "Willis'"—that is, a lever power. Lever 25 feet long, with six-inch purchase. Chain strong enough to hold the team with that power. Cost of machines about three hundred dollars. They never wear out. Have used these machines more or less for the last nine years. If W. H. L., or any one else, wishes to know more of the particulars, I will reply to any communications on the subject, if they will ask questions on the particular point of which they wish to be informed. W. H. BENSON.

*Jamestown, N. Y.*



**Smut in Wheat and how to Prevent it.**—Take one pound of blue oil of vitriol—dissolve it in two or three quarts of boiling hot water, in some earthen vessel. Then put it in a pail and fill with cold water. Now take ten bushels of seed wheat, on the barn floor, and sprinkle this solution all over it, and shovel it thoroughly, so that every kernel is wet, and in two or three hours it is ready to sow. You may keep it longer just as well, if you dry it and keep it from heating. This receipt is efficient, but if you have very smutty wheat you may raise a little smut the next year, but none after that. O. Pr. *Calumet, Wis.*

**Rabbits in Orchards.**—I believe I have found out a protection for my fruit trees from rabbits, the great destroyers in winter. One year ago last winter there was left in my orchard some 20 stocks of corn not husked. The rabbits that winter destroyed many orchards near me, but not a tree of mine was injured by them. Last year I planted my orchard to potatoes and beans; late in the fall I had set out near the margin of the orchard, about twelve rods apart, shocks of corn, and not a tree was injured; so I conclude that all that is necessary is to feed the rabbits, and feeding them is the cheapest protection. G. H. S. *Beaver Dam, Wis.*

**Bees vs. Grapes.**—A neighbor, Mr. Swasey, living a short distance removed, has recently had his entire crop, (several bushels, from young vines just come into bearing,) of Delaware grapes, destroyed by bees, by their puncturing the fruit and extracting therefrom every particle of juice, leaving the outside covering or skin and seeds, only a dry mass. Having destroyed all the Delawares, they are now attacking the Concord and other varieties, showing their preference and discrimination in taste, in favor of the Delawares, before making a raid on the other kinds. Shall we exterminate the bees, or suffer them to destroy our best of fruit? I say war on the bees. BRUNSWICK. *Troy, Sept. 7, 1865.*

#### A DELIGHTFUL BEVERAGE.

Many attempts have been made with only partial success, to prevent cider from becoming hard after it has been kept a few months. In the early stages of fermentation, and before it has fermented at all, it is a delightful beverage, and a process by which fermentation can be arrested at any desired point, is a desideratum entitling the discoverer to the thanks of the public. Such a process has been found by WM. CHAMBERLAIN of Albion, N. Y., who has been experimenting with cider for several years past, for the purpose of attaining that object, and we think he has succeeded admirably, judging from samples of cider prepared by him last fall, which we have had the pleasure of tasting. It is not insipid, like cider fresh from the press, but it is bright, sparkling and piquant. Mr. Chamberlain has not yet put any cider into the market, but designs to do so this fall. It can be made cheaply enough to enable everybody to use it. *Rochester Daily Democrat.*

In relation to the above, Mr. CHAMBERLAIN writes to us as follows: "My preparation is purely vegetable, and will either keep the cider perfectly sweet, or arrest it at any stage of its effervescing that may be desired. It is different from any other way of producing cider, and is certain in its effect."

**Sale of Cotswold Rams.**—Burdett Loomis of Windsor Locks, Conn., has sold to S. T. Duell, Hart's Village, Dutchess Co., N. Y., his 3 year old ram, "Col. Ware," which received the 1st prize of his class at the New-England Fair held at Springfield, Sept., 1864; also 1st prize at the New-England Fair at Concord, 1865, as a 3 year old. Also to Mr. E. R. Andrews, West Roxbury, Mass., his two year old ram "Guelph," which received the 1st prize in his class at the New-England Fair in 1865; also received sweepstakes medal. Also 1st prize yearling ram to Israel G. Teft, Baltic, Conn., and 1st prize ram lamb to H. M. Hall, East Burke, Vt.

One ounce of direction or of wisdom, is worth two pounds of wit.

#### Illustrated Rebus—No. 29.



#### Illustrated Rebus—No. 30.



**ANSWERS TO ILLUSTRATED REBUSES.**—No. 26. "You ought to bear in mind one fact, that a rebus is expensive." No. 27. "Boys, go at your studies with a will if you want to become great men." (Boys go-at ewer stud-ee withea will if ewe w-ant toe bee-come grate men.) No. 28. "Washington, first in war, first in peace, first in the hearts of his countrymen."

**The Cattle Plague.**—This fearful disease seems to be extending in Great Britain, and the papers continue full of letters and discussions on the subject. Such cases as the following are reported:

The fine herd of Ayrshire cows, kept at Holly Lodge, Highgate, the property of Miss Burdett Coutts, has been literally swept away during the last ten or twelve days by the plague which is now so prevalent. The herd numbered 20 cows of the purest Ayrshire breed, and an Alderney bull. One cow has recovered from the disease, and the bull was unaffected by it. The cow that has survived was condemned by Mr. Mayor, veterinary surgeon, and, according to the testimony of Roach, the herdsman, was pronounced to be in the very worst condition, and the medium through which the disease was communicated to the other animals. The destruction of this herd by the disease suggests one or two reflections as to its origin and nature. Every one of the presumed causes of the disease was absent, and yet it attacked the animals with the utmost virulence, and no amount of remedial skill could allay its severity or arrest its progress. The herd had been some time at Holly Lodge; therefore it was not tainted with any imported cattle: it was in excellent condition, and several of the cows were yielding from sixteen to eighteen quarts of milk per day: the sheds in which the animals were milked were clean, airy, lime-washed, and every kind of ordure removed, besides being also well gravelled: the pasture was not only good, but rich, and the water pure; so that as far as food and treatment could keep a herd of cattle in first class condition, there was everything that could be desired. Yet the animals sank rapidly, and some of them exhibited the worst characteristics of a disease which, it is asserted, exhibited the usual symptoms of pleuro-pneumonia, viz., either excited with staring gaze, protruding eyeballs, and watery eyes, or depressed and relaxed, with a dull, dim look, and a flow of mucus from the eyes and the nose; a cold shivering, and a coolness of the horn, the ear, and the extremities, with staring coat, trembling of the muscles, and increased respiration. Foam and saliva flowed from the mouth, and the lungs of the animals were swollen much beyond their natural size in almost every instance.

**Seedling Grape.**—J. W. Briggs of West Macedon, N. Y., sends us samples of a seedling grape raised by him, which he says is pronounced by good judges a good wine grape. The plant stands in the open ground entirely unprotected, and has never been injured by our winters. It has fruited three years, "always proving some ten or twelve days earlier than the Delaware, and is considered perfectly hardy."

**KERRY CATTLE FOR SALE**—*Bulls, Cows and Heifers*, from imported stock, by **R. BRADLEY**, Brattleboro, Vt. Sept. 21—w4t.

**FOR SALE**—*Short-Horn Bull* "FIELD MARSHAL," bred by Samuel Thorne, Thorneedale, N. Y., calved April 10th, 1859. **R. BRADLEY**, Brattleboro, Vt. Sept. 21—w4t.

**WEBB SOUTH-DOWN RAM FOR SALE**.—Bred by Mr. Taylor of New-Jersey; got by his celebrated "No. 89," out of an imported ewe. He is 2 years old, in good condition, and a sure stock getter. Address **E. B. HUNTINGTON**, Box 658, Hartford, Conn. Sept. 21—w2t.

**GOLDEN SPANGLED HAMBURGS**.—Perpetual layers, non-sitters, eggs large, weight at maturity 10 to 12 pounds per pair, and color uniform. *Seven pairs* from imported stock for sale, price \$3 per pair, boxed and shipped as required. Apply to **THOMAS GOULD**, Aurora, Cayuga Co., N. Y. Sept. 21—w2tm1t.

**ROADSTERS, MERINO SHEEP & ANGORA GOATS**.—One pair of black Morgan Mares, 4 years old, well mated, one by Cottrill Morgan, the other by Vermont Boy. One bay Gelding, 5 years old, by Cottrill Morgan, and one black Stallion, 5 years old by Vermont Boy, all broke to saddle and harness. Also Spanish Merino Bucks and Ewes, and a few Angora Goats. **JOHN S. GOE**, Box 13, Brownsville, Penn. Sept. 21—5wt.

**GREAT SALE OF Thorough-Bred Ayrshires and THOROUGH-BRED JERSEY STOCK.** **JOHN R. PAGE**, Auctioneer.

Will be sold at the **GILES FARM**, South Woodstock, Conn., 2½ miles from Putnam Station, Conn., on the Norwich and Worcester Railroad.

**Wednesday, October 18, 1865.**

Ayrshires, 30 head of COWS, HEIFERS and BULLS, among them the celebrated cow Jean Armour, imported by H. H. Peters, Esq., and several other choice imported animals, of which warranted pedigrees will be given.

Also at same time and place, 20 head of thorough-bred Jerseys, consisting of COWS and HEIFERS, all of the cows served by a pure-bred Jersey bull, and are now in milk, some will drop their calves in December and February next. A warranted pedigree will be given to each animal. We call the attention of gentlemen wanting such stock, and with confidence say that a finer herd of Ayrshires and Jerseys was never offered on this continent before, the Ayrshires being deep milkers, and the Jerseys having given from 12 to 16 pounds of butter each the last season. Catalogues can be obtained ten days before the sale by applying to the Auctioneer or to H. N. Thurber, Pomfret Landing, Conn., or to John Giles, South Woodstock, Conn. **H. N. THURBER**, Pomfret Landing, Conn. **JOHN GILES**, South Woodstock, Conn. Sept. 21—w4t.

**MORETON LODGE, GUELPH, C. W. Sixth Annual Sale of Pure-Bred SHORT-HORNED AND HEREFORD CATTLE,**

**COTSWOLD, SOUTH-DOWN & LEICESTER RAMS.**

*Berkshire Pigs, Aylesbury Ducks and Dorking Fowls.*

Mr. KNOWLES has received instruction from Fred. Wm. Stone, Esq., of Moreton Lodge, Guelph, Canada West, to **SELL BY AUCTION**, without reserve, on *Wednesday, the 4th day of October*, a choice selection of about twenty-five head of young BULLS, COWS and HEIFERS, in good condition, from his celebrated herds of *Short-Horned and Hereford Cattle*, bred from some of the most fashionable and well known herds of the day. Also will be offered about forty magnificent Shearling and older RAMS, consisting of full-blooded *Cotswolds, South-Down and Leicesters*, in fine condition, large size, good quality and well woolled, got by the Prize Rams. And about twenty prime young *Berkshire Pigs*, (boars and sows,) of the purest blood.

**TERMS**—Under \$25, cash; \$25 to \$100, three months; over \$100, six months credit on approved endorsed notes, if required. Sale to commence with Pigs and Poultry at 10 o'clock A. M.; Luncheon at 12 M.; sale resumed promptly at 1 P. M. Catalogues with pedigrees and other particulars may be had on application to **Mr. KNOWLES or Mr. STONE**, Guelph, Canada West. Aug. 31—w5t.

**FOR SALE**—*Short-Horn Cattle, South-Down and Cotswold Sheep*, at our farm near Lexington, Kentucky. Catalogues sent on application. **WILLIAM & BEN WARFIELD**. Aug. 31—wtf.

**HEREFORDS FOR SALE**.—A few Thorough-breds, consisting of BULLS, COWS, CALVES, &c., bred on the best Imported Stock. **G. CLARKE**, East Springfield, Otsego Co., N. Y. Dec. 17—wtf.

**FOR SALE.**

**Two Merino Bucks,**

2 and 1 years old, of the Atwood breed. Price, \$25 each. Address **F. E. JUDSON**, Bethlehem, Conn. Oct. 1—mlt.

**MERINO SHEEP FOR SALE**.—Five *first class* EWES, purchased of Edwin Hammond, at a high price, in March, 1862. Also 8 or 10 BUCKS, bred from these ewes and sired by Old Grimes—two of the latter are superior animals. Also Bucks and Ewes from my old stock, which are as pure in blood, and equal in quality to any in Vermont.

Can take a few more ewes for Old Grimes—terms of service, \$50 per ewe, or one-half the lambs—none but first class ewes received. For further information call upon or address **Sept. 7—w13t. GEO. CAMPBELL**, West Westminster, Vt.

**WEBB SOUTH-DOWNS**—Thirty EWES, 25 EWE LAMBS, 20 RAM LAMBS and YEARLINGS and the celebrated IMPORTED RAM ARCHBISHOP, for sale this fall. **GEORGE H. BROWN**, Millbrook, Washington Hollow, Aug. 24—wtf. **Duchess Co., N. Y.**

**IMPROVED SHORT-HORNS FOR SALE**.—The got of Sixth Duke of Thorndale. **GEORGE H. BROWN**, Millbrook, Washington Hollow, Aug. 24—wtf. **Duchess Co., N. Y.**

**IMPROVED SHORT-HORNS**.—The subscriber offers for sale at reasonable prices, a few young BULLS and BULL CALVES of great promise. Apply in person at **ELLERSLIE FARM**, one mile south of Rhinebeck Station, Hudson River Railroad, or by letter addressed to **July 13—wtf. WILLIAM KELLY**, Rhinebeck, N. Y.

**FOR SALE.**

**Thorough-bred Horses, TROTting HORSES, SHORT-HORN CATTLE, SOUTH-DOWN & COTSWOLD SHEEP, AT WOODBURN FARM, SPRING STATION, WOODFORD COUNTY, KY** **R. AITCHESON ALEXANDER**. July 13—wtf.

**CHESTER COUNTY WHITE AND Prince Albert Pigs**

**FOR SALE**, not akin, best blood in the country, \$18 per pair. Apply to **June 8—w&mtf. R. L. PELL**, Pellham Farm, Ulster Co., N. Y.

**THOROUGH-BRED DEVONS FOR SALE. Bulls and Heifers.**

Address **JOSEPH HILTON**, New Scotland, Albany Co., N. Y. June 2—wtf.

**JACKS AND JENNETS**—From imported stock constantly on hand, and raised by **J. T. WARDER**, Springfield, Clark Co., Ohio. May 18—wtf.

**THOROUGH-BRED DEVONS FOR SALE. SAMUEL FAILE,**

*Ridge Farm, White Plains, Westchester Co., N. Y.* Offers for sale, from the stock imported by the late Edward G. Faile, West Farms, a few BULLS and HEIFERS of superior quality. All stock sold will be delivered at Railway free on charge. White Plains is located on New-York and Harlem railroad, about one hour's ride from New-York city. **March 16—wtf. SAMUEL FAILE**.

**SHORT-HORNS, AYRSHIRES**

**And Alderneys—for Sale by**

**Feb. 18—wtf. C. I. HAYES**, nadilla, Otsego Co., N. Y.

**IMPROVED**

**Horse Stock for Sale.**

**THOROUGH-BREDS, HALF BREDS, TROTTERS and ROADSTERS.** **E. N. WILLCOX**, Nov. 3—wtf. Whitewood, Detroit P. O., Mich.

**LADIES READ!—EVERY WOMAN'S FRIEND.**—A most wonderful discovery in the properties of medicine, made through the mysterious powers of the

**GREAT MEDIUM PHYSICIAN,**

**DR. S. YOUNG.** Send for Descriptive Circular, enclosing 3 cent stamp, to **DR. S. YOUNG**, Post Office Box 365, Troy, N. Y. Aug. 21—w2tm2t.



**FOR SALE**—A few pure blood *Merino Ewe Lambs* and *Ewes*, with first class pedigrees, and three superior **RAMS**. Also two pure blood, 3 year old *Shropshire Rams* from imported stock, with first-class pedigrees. Weight over 200 pounds each.  
W. M. BEEBE,  
Aug. 24—w5t. Northport, Suffolk Co., N. Y.

**SOUTH-DOWN SHEEP FOR SALE**.—I offer a fine lot of pure **SOUTH-DOWN SHEEP** bred from importations of Thorne, Taylor and E. Cornell of Ithaca. Ewes from 1 to 3 years old, and lambs of both sexes. Prices low.  
Aug. 24—w5t. GEO. HARTSHORN, Rahway, N. J.

### **SOUTH-DOWNS FOR SALE.**

*Rams, Ram Lambs, Ewes and Ewe Lambs.*

Bred from the flock purchased of EDWIN THORNE—the yearlings and lambs all by an imported ram—the whole strictly of first quality. Address ELIHU GRIFFIN,  
Aug. 24—w10t. Clinton Corners, Dutchess Co., N. Y.

**COTSWOLD SHEEP FOR SALE**.—A few thorough-breds, consisting of

**Bucks, Ewes, Lambs,**

&c., from best imported stock. WILLIAM REYBOLD,  
Aug. 17—w13t. Delaware City, Del.

### **SOUTH-DOWN SHEEP FOR SALE.**

**A Very Choice Lot of RAM AND EWE LAMBS.**  
Also EWES and YEARLING RAMS, bred from a ram imported from Jonas Webb. SAMUEL I. SHARPLESS,  
Street Road Station, Chester Co., Penn.  
And 704 Walnut-St., Philadelphia. Aug. 10—cow4t.

### **SHEEP, HOGS AND GOATS.**

**Vermont Spanish Merino Bucks,**  
**FIRST PRIZE CHESTER WHITE PIGS,**  
**CASHMERE SHAWL GOATS, &c.**  
H. C. GRAFF,  
Aug. 3—w9t. Maysville, Col. Co., Ohio.

### **LEICESTER SHEEP,**

**ALDERNEY HEIFERS,**  
**FOR SALE.**  
**WILLIAM REDMOND,**  
**45 Barclay-Street, New-York.**  
July 27—w9t.

### **FOOT ROT IN SHEEP**

*Can be Thoroughly Cured by Using*  
**WHITTEMORE'S CURE FOR FOOT ROT**  
**IN SHEEP.**

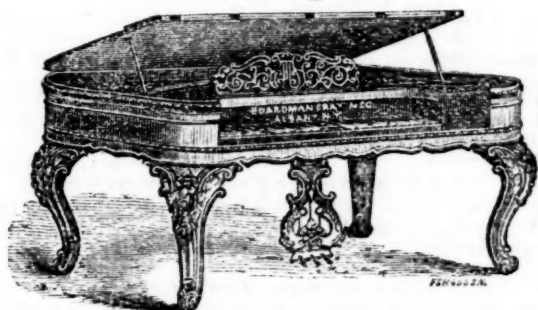
It has been tested in most sheep-growing districts, and has effected

**Positive Cures where Everything Else Failed**  
Certificates can be sent on application to the proprietor. Ask for Whittemore's Cure. For sale by all Druggists, and by Post & BROFF, Rochester, N. Y., WIGHTMAN & Co., Bath, N. Y., also by the sole proprietor,

F. W. WHITTEMORE,  
July 13—w14t. Chatham Four Corners, N. Y.

### **BOARDMAN & GRAY'S**

**Patent Improved**



**Insulated Iron Rim and Frame**  
**PIANO FORTES.**

MANUFACTURED BY  
**WILLIAM McCAMMON**  
(Successor to BOARDMAN, GRAY & Co.)  
**Albany, N. Y.**

SEND FOR ILLUSTRATED PRICE LIST. Mar 23—w&m.

### **THOMAS WOOD,**

*Penningtonville, Chester Co., Penn.,*

continues to ship to order, to any part of the Union, his celebrated **PREMIUM**

**Chester County White Hogs,**  
in pairs not akin, on reasonable terms. June 15—w&mos.

### **SHORT-HORNED CATTLE.**

**SAMUEL THORNE, Thorndale,**

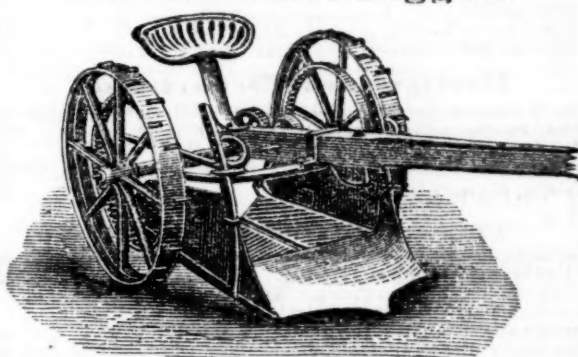
*WASHINGTON HOLLOW, DUTCHESS CO., N. Y.,*

Offers for sale a few very superior **COWS, HEIFERS and BULLS.** Catalogues of the herd sent by mail on application, and the herd is at all times subject to the inspection of visitors.

THORNDALE is 14 miles from Poughkeepsie Station, on the Hudson River Railroad, and 8½ miles from Dover Plains on the Harlem Railroad. Dec. 1—wtf.

### **ASPINWALL'S**

**Patent Potato Digger.**



### **RIGHTS AND MACHINES FOR SALE**

**Send for Circular to**

L. AUGUSTUS ASPINWALL,  
July 20—wtf. Ireland's Corners, Albany Co., N. Y.

### **TICKS, SCAB, VERMIN.**

**Sheep Wash Tobacco**

SHOULD BE USED BY ALL FARMERS ON

### **SHEEP, ANIMALS & PLANTS.**

**JAMES F. LEVIN, Agent South-Down Company,**  
**23 Central Wharf, Boston**

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HAINES & PELL, 27 Courtlandt-St., New-York.  
GRIFFING BRO. & CO., 58 & 60 Courtlandt-St., N. Y.  
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ELIAS FOOTE, Batavia, N. Y.  
WM. SIMPSON, Jr., New Hudson, Allegany Co., N. Y.  
A. M. WIGHTMAN, Bath, N. Y.  
STODDARD & BURTON, Troy, N. Y.  
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LANE & PAINE, Rochester, N. Y.  
M. W. McCOMBER, Albany, N. Y.  
KENYON, POTTER & CO., Syracuse, N. Y.  
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J. C. S. HARDENBURG & CO., Newburgh, N. Y.  
HENRY BOWERS, Penn Yan, N. Y.  
GRAHAM, EMLEN & PASSMORE, Philadelphia.  
JOHNSTON, HOLLOWAY & CAMDEN, Philadelphia.  
March 29—w29t.

### **ENDLESS CHAIN AND LEVER**

**HORSE POWERS,**

### **THRESHERS AND CLEANERS,**

**Threshers and Separators,**

CDOVER HULLERS, CIRCULAR & CROSS CUT WOOD-SAWING MACHINES, CIDER MILLS, BROOM CORN SCRAPERS, &c., manufactured by

**G. WESTINGHOUSE & CO., Schenectady, N. Y.**

Send for Circular, containing full description and prices of above named machines. Address

G. WESTINGHOUSE & CO.,  
May 18—w1amt. Schenectady, N. Y.

**Agricultural Books for Sale at this Office.**

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**NEW GOODRICH SEEDLING POTATOES.**

I will sell a few barrels of Early Goodrich, Calico and Gleason potatoes. Price—Early Goodrich, \$1.25 per peck, \$1 per bushel, or \$10 per barrel; Calico and Gleason, \$1 per peck, \$3 per bushel, or \$7.50 per barrel. For particulars send for Circular. C. W. GLEASON, Sept. 28—w4tmf. Holden, Mass.

**GOLDEN SPANGLED HAMBURGHES.**—Perpetual layers, non-sitters, eggs large, weight at maturity 10 to 12 pounds per pair, and color uniform. Seven pairs from imported stock for sale, price \$3 per pair, boxed and shipped as required. Apply to THOMAS GOULD, Sept. 21—w3tmf. Aurora, Cayuga Co., N. Y.

**The Annual Register of Rural Affairs—1866.**

The Twelfth Number of THE ANNUAL REGISTER OF RURAL AFFAIRS, for 1866, is now in press. The usual amount of labor and expense have been laid out upon its contents and illustrations, and we think it will rank as one of the most interesting and useful numbers in the series.

The purpose of this notice is to apprise ADVERTISERS that a limited number of pages will be devoted to their wants, as heretofore. THE ANNUAL REGISTER remains as a work of constant reference throughout the year; it reaches thousands who are not subscribers for either of our other publications, besides its purchase by a very large majority of the subscribers to the COUNTRY GENTLEMAN and CULTIVATOR. The back numbers remain in demand year after year, so that the advertisements are constantly brought into new hands. And, as the sales of the ANNUAL REGISTER continue large, not only throughout the Autumn and Winter, but also late into the coming Spring, we may suggest that advertisers should bear in mind this fact in the preparation of their favors: manufacturers of Mowing and Reaping Machines, Plows and other implements, as well as Nursery and Seedsmen, Breeders, etc., will "be first in the field" for 1866, by taking this medium of reaching the Agricultural Public.

**TERMS OF ADVERTISING IN THE ANNUAL REGISTER.**

One Page,..... \$30.00 | One Third Page,..... \$12.00  
One Half Page,..... 18.00 | One Fourth Page,..... 9.00  
Business Cards, (Live Stock, &c.,) \$5.

Our friends will oblige us by sending their advertisements as soon as possible; the space desired should be specified, in order that the matter may be set as conspicuously as the prescribed limits will permit.

Many have been disappointed in securing advertising space in the ANNUAL REGISTER, each year, from failing to make their wishes known in season. Some of our largest and most constant advertisers were thus excluded from the last number. Those who are not prepared to send "copy" at once, which is not absolutely necessary, can be accommodated by bespeaking the space desired, and we will inform them, in due season, when the advertisement itself must be put into the printer's hands.

Albany, August, 1865.

LUTHER TUCKER & SON.

**SCRIBNER'S TAX PAYER'S GUIDE.**—G. W. Fisher, Rochester, N. Y. This guide contains just so much of the

**REVENUE LAWS!**

as is needed by every tax-payer, and adapted to their wants in making income returns. Six copies mailed to one address on receipt of \$1; single copies 20 cents each. Address the subscriber. J. M. SCRIBNER, Sept. 7—w&mt. Middleburgh, N. Y.

**TRUE DELAWARE GRAPEVINES.**—From the original vine. Also Iona, Israella, Adirondac, Allen's White Hybrid, Concord, Crevelling, Diana, Hartford Prolific, Roger's Hybrids, Rebecca, Anna, Maxatawney, and all other desirable varieties.

**CURRENTS, RASPBERRIES and STRAWBERRIES** of the improved kinds. Plants of best quality. Prices moderate. Send stamp for Descriptive Price List to Sept. 28—w8tmf. GEO. W. CAMPBELL, Delaware, Ohio.

**SHETLAND PONIES.**—Very superior Shetland Ponies for sale. Inquire of CHRISTOPHER SMITH, Sept. 28—w2t. Care of Rev. Dr. Lord, Buffalo, N. Y.

**HEDGE PLANTS—200,000 OSAGE ORANGE** and HONEY LOCUST for hedging, at \$8 per 1,000; \$60 per 10,000; \$100 per 20,000, at BUIST'S NURSERY, Sept. 28—w3t. Darby Road, Philadelphia.

**WANTED**—A man with a small family to take the management of a farm of 50 acres. Sept. 28—w4t. F. W. NOBLE, Easton, Penn.

**R. BUIST, Nurseryman, Darby Road, Philadelphia,** offers a very choice lot of CHINESE AZALEAS, embracing every new variety, either as specimens, or by the hundred to retail, at favorable rates. Sept. 28—w3t.

**FRUIT TREES**—Of extra sizes and in quantity, for sale by R. BUIST, Nurseryman, Sept. 28—w3t. Darby Road, Philadelphia.

**GOLDEN ARBOR VITÆ and FAN LEAVED** ARBOR VITÆ, beautiful specimens, by the hundred or thousand, at very reasonable rates. R. BUIST, Sept. 28—w3t. Darby Road, Philadelphia.